WEDNESDAY, NOVEMBER 1, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON FLIES AS AN ANNOYANCE TO SURGICAL PATIENTS.

Delivered at the Pennsylvania Hospital, June 14, 1871,

BY ADDINELL HEWSON, M.D.,

One of the Attending Surgeons.

GENTLEMEN,—The patient I now present you will scarcely recognize from his appearance as one whom you have seen before. You will remember, however, that two weeks ago I brought before you a young man who had just then been admitted into the hospital for injuries which he had sustained the day previous in a coal-mine in Schuylkill County, over a hundred miles from here. This is he. His injuries were burns of various degrees, and lacerations, involving the upper and front parts of his body and face,—the results of a premature explosion of powder in the mine. As soon as practicable after the accident, provision was made to convey the patient to our hospital; and as he arrived here, as I have said, just a few minutes before my lecture-hour, I took the opportunity not only of showing you the characters and conditions of his injuries before they were covered with the earth dressings, but also the means by which he had been conveyed from the place where he was injured into the very wards of our hospital, as I thought the latter would be particularly instructive to you. The conveyance, you will remember, was a box a little over six feet long, two and a half feet wide, and some eight or ten inches deep, constructed rudely on the spot out of inch deal boards, with projecting pieces at the ends to serve as handles. This box, filled with hay, had furnished him, at the least cost and delay, a most comfortable means of reaching us here by railroad and other transportation without ever having to be disturbed in any way. I thought this a subject worthy of comment to you at the time, and took the occasion to make some remarks in reference to it, and as to the best modes of moving patients from the places where they have been injured to where they are to be treated.

To-day this patient presents quite a ludicrous appearance as he walks into the room, enveloped with what looks like a long white veil. But this covering is a measure of comfort and protection quite as highly prized by him as the crude box was two weeks ago, for it is a relief from one of the greatest torments to which our surgical patients are subjected at this season of the year, and to which I wish particularly to call your attention to-day. I allude to the flies.

His face and hands, you will remember, were extensively injured; their denuded surfaces have since then become completely healed over under the earth dressings. Here and there you can observe a crust, but the new cuticle covering the burnt parts is as thin and delicate as that of a child, and in that condition is particularly attractive to the flies which are so numerous during this and the next two months. The epithelium covering our bodies is, you all know, directly concerned in the elimination constantly going on of effete matters from the surface of the skin, and for the perfection of the function so performed it is necessary that there should be several layers of cells, as much of the elimination is the result of simple transudation; and if the layers of epithelium are very thin and few in number, the material escaping will not only be more abundant, but in a cruder state than that which comes through a thicker skin. The protean matters constituting an essential part of the solid ingredients of such eliminations, finding readier escape than usual, make the exhalations from this man's face and hands more palatable to the flies than they would otherwise be. The fact is well known, even to others than entomologists, that the common house-fly's avidity for albumen and albuminous matter is such that it will seek and remove all such materials with great diligence wherever it can find them. It is the greed for such that makes the musca domestica so destructive in our libraries, especially to handsomely-bound books which are kept uncovered in conspicuous places. If you will take the pains to examine with a lens the coverings of books of that character which have been exposed for a month or two in the early summer, you will discover that the glazing on them is defective,—that it has evidently been removed in spots. On older books of this kind you can recognize these defects without any aid from a lens, for the spots on them have become filled with dust, and the leather there has assumed a different hue from that of the parts which still retain their glazing, and the contrast makes the mischief done quite apparent. This disfigurement is the result, I have intimated, of the common fly eating the albuminous matter of the glazing, and it is in search of such food that this fly comes to torment us, especially when our bodies are moist and perspiring. The contrivance by which this feeding is accomplished is most wonderfully adapted to its purpose, and readily explains how annoying this little insect can be to us all. A microscopic examination of a fly's proboscis shows that the tongue when protruded separates into two muscular leaves, rough like a rasp on their inside, and capable of acting as a perfect sucker and file on any surface to which it is applied.

The house-fly, like all other flies, is strictly matutinal in its ways, being active only in the light, and always most hungry and industrious about daybreak, as you all no doubt know by personal experience from having gone to bed with your windows wide open, or trying to take a nap after dinner with plenty of light in the room, and then trying either with the room darkened as completely as possible. You can therefore, I am sure, all of you appreciate what an annoyance flies must be in a public institution, especially when you take into account the attractions which exist there for them.

Prominent among the causes of these attractions are the habits of the patients. Many of them never, when in health, wash their persons from one year's end to another; then they all conceal things about their beds, especially cakes and such other edibles as are forbidden them by their attendants; then the dressings and applications are more disarranged at the time in the morning when these insects are most ravenous; and, finally, you may preach till you are tired, but you cannot persuade all the patients of a ward to be content with the room darkened after the day dawns. You can, then, readily imagine how a convalescent patient like this one must be annoyed in our wards by what he may fairly call the devourings of this species of fly.

This is our annoyance from the common house-fly,—the *musca domestica*.

There is another species of fly to be met with, but not so frequently, in the rooms of our surgical patients, which is annoying in another way also. I mean a species of the meat-fly,—the *musca sarcophagia* of Linnæus,—the blow-fly, which is the source of the maggots occasionally to be seen on ulcerated surfaces. There is perhaps nothing more revolting to the patient and his friends, and even to his attendants, than to behold his wound alive with these greedy little objects, looking as though they were about to devour him without any delay. Their presence is, I may say, universally attributed

to want of cleanliness; but this is wrong, for I have seen them on an ulcer within five minutes of its having been washed. If one says *neglect* or *carelessness*, then I give my assent; for my experience is that the part must have been left uncovered, or so imperfectly protected that this fly could get to it. Some attribute these maggots to the common house-fly; but that species of fly is not viviparous, but oviparous, and its eggs require eight or ten days for their development into the larva state. Then the house-fly deposits its eggs only in August and September, and always seeks some secluded spot for them. I cannot now get any such larvæ to show, for, as I have just said, they are not in season. They are described in the entomological dictionaries as "cylindrical, rounded posteriorly, smooth and shining, and yellowish white,—four lines long," and are very different, as I shall show, from the maggot which is annoying to us,—that is, from the blow-fly, which is viviparous, depositing maggots as such, and mostly in places where there is plenty of nutriment for them; and this it does in the months of May and June.

Here are specimens of the two species of flies,—the *domestica* and the *sarcophagia*,—on insect-pins.

At first glance you will not notice much difference between the two. In general form they are quite alike. There is, however, quite a difference as to their size. A casual observer may not think this worthy of note, and an uninformed observer might readily attribute the difference to age; but this would be incorrect. The *house-fly*, the smaller of the two, has already attained its full size. There is a most striking difference in the appearance of the bodies of these two flies when examined critically. That of the maggot-producer is checkered like a chess-board, black and white, whereas the body of the house-fly is undefinedly streaked, giving it a more or less uniform grayish hue.

I said this species of fly is *viviparous*. Here is a female which I caught a few minutes ago. She is evidently big with young; and as I compress her body there are extruded on this piece of blue paper, where they can be readily recognized even at some distance, one—two—three—four—until you see I have brought no fewer than thirty-two maggots all alive and kicking into the world. You can after this demonstration believe without the least hesitation what might have been before thought by you to be an exaggeration,—namely, the assertion made by entomologists that one of these flies is able to produce as many as forty maggots at one effort. These maggots present quite a different appearance from that of those coming from the egg of the house-fly. They are not cylindrical, but taper regularly from one end to the other. Their broad end is obliquely truncated, and in this last respect they are very different from the maggot of the house-fly, which you will remember I told you is rounded posteriorly. The meat-fly maggot is much the same in color as the other, and has a blackish line—its alimentary canal—quite distinctly visible in its centre, passing from one end to the other of the body. When just born, as you now see, they measure scarcely the sixteenth of an inch, but they are, as my colleague Dr. Hunt calls them, most industrious scavengers, feeding constantly, and attain their full size of five-eighths of an inch within twenty-four hours after their extrusion from the parent fly. They are the maggots which were so disgustingly numerous among the wounded during our late war, and, as they were particularly to be found on those who had lain uncovered on the battle-field all night, the inference was drawn that the parent fly was in the habit of depositing its maggots at night. But this fly is no more nocturnal in its habits than the *domestica;* indeed, it is precisely like the latter, both as to feeding itself and reproducing its species,—most busy in both operations after a night's rest, and to be kept from both by darkness; and you can readily understand, after what I have just shown you, that a host of these maggots could be deposited without difficulty between day-dawn and the time for dressing—after breakfast—at this season of the year.

There are other species—the blue-bottle and the green fly—which are in this neighborhood, but not so common about our dwellings or the wards of the hospitals as those of which I have already spoken, for they prefer shady and damp places near the ground. You will see plenty of them in the city, in obscure corners of the market-houses and privies, and about the cellar-windows of grocery-stores. They pinch you with their probosces, when tempted to do so, much more severely than does the common house-fly, and are described as viviparous by some entomologists,—though whether correctly or not I am unable to say. Their season for reproduction is probably other than that of my service, for I have never when on duty—and I have never thought of it at other times—been able to catch a blue or green fly containing even a single maggot.

As to protecting and ridding ourselves of these pests, there are various expedients to be resorted to under different circumstances. You may drive them out with a brush, but, unless something is done to render the place uninviting to them, they will return immediately. There are many weeds or plants emitting an empyreumatic odor which answer well for the purpose. Of such to be found about the country in this neighborhood I know none more effectual than the wild chamomile, a species of anthemis, known also as cotula or Mayweed. The odor of this plant is not at all disagreeable, and branches of the weed when in flower, or some of the dried flowers, scattered about a room, will soon rid it of all flies.

Another means, perhaps quite as efficient and certainly more easily resorted to, is to throw some powdered black pepper on a hot shovel and carry it about the room. The generation of empyreumatic vapors in the same way from other spices will also, it is said, answer the purpose. A few drops of carbolic acid or creasote, on a cloth hung up in the room or used in the dressings, would probably be effectual, but the odor is not usually so acceptable to one's olfactories.

Cooley, in his Practical Receipts, tells us that it is a fact not generally known that flies will not pass through a netting made of fine silk, thread, or wire, even though the meshes are an inch apart, unless there is a window or a light behind it. Hence the satisfaction which the patient before you experiences in getting into a corner of the ward, although it is not darkened, with his net over him. Early yesterday morning I had a demonstration of the truth of the converse of the above, in a man with no more smell about him to attract the flies than there is about the present patient. He was in a bed with a fly-net over him elevated some two and a half feet from the bedding by hoops, and the bed itself was in such a position in the north ward that there were three windows and a door on either side and end of it, so that we could see perfectly through the netting from every direction. As I approached the bed, I noticed and directed the attention of those who were with me to one of these checkered flies sailing about. In a moment she alighted on the net, and, walking a short distance on it, she attained a point apparently in a direct line above where some pus had escaped through the bandage. There she seemed to stop deliberately, and, making an effort, she extruded a number of maggots, which, falling through the netting, were landed close by to where they would have soon found plenty to live on. This furnishes us with an excellent illustration of the influence of light, and why the darkening of the room is an important measure of protection.

Now, there are many means of killing these flies, such as the fly-paper sold in the stores, and various mixtures, either of powder or paste, such as a strong decoction of quassia thickened with moist sugar, or the following mixture: one teaspoonful of powdered black pepper, two of brown sugar, and four of cream. All such, however, are, I think, objectionable, from the fact that they contain saccharine matter to draw the flies. You but invite a host of mourners for those destroyed by the poison, thus in the end aggravating the evil. As to the maggots, they can not only live but thrive under any topical application which is not injurious and painful to ulcerated surfaces; hence, when once in a wound, there is no satisfactory way of ridding the part of them except a mechanical one,—washing or picking them off.

ORIGINAL COMMUNICATIONS.

ENLARGEMENT OF THE LIVER, CAUSED BY ALBUMINOID DEGENERATION.

BY JAMES H. HUTCHINSON, M.D.,

One of the Attending Physicians to the Pennsylvania Hospital.

THE patient whose case I am about to report was under my care for more than three years, and must have had a marked enlargement of the liver for at least two years before that time, for, in addition to the history which he gave me of his illness, I have learned that, five years ago, he was under the care of a physician of this city, who treated him for carcinoma of that organ. Albuminoid degeneration of the viscera is not so common, apparently, in this country as in Europe, but within the last three years no fewer than ten cases have come under my observation. In four of these the diagnosis was verified by the results of the autopsy; in one case, where great enlargement of the liver existed, no post-mortem examination could be obtained; and in the remaining five the patients are believed to be still alive. All these cases, except one, presented a distinct history of antecedent suppuration, confirming in this respect the views of Dr. Dickinson, of London.

For a part of the notes of the case I am indebted to my friend Dr. I. Minis Hays.

D. K., æt. 26, admitted, April 30, 1868, to the Pennsylvania Hospital; born in Ireland; has lived in Philadelphia since he was six years old; unmarried; carpenter; moderate drinker. Is of strumous diathesis. His father died of cancer of the stomach; mother living.

When six years of age, the glands of the right side of his neck began to enlarge; at the end of six months they suppurated, and then healed rapidly.

When seventeen years old (1859), the glands of the left side of his neck enlarged; in six weeks suppuration set in, and was profuse for six weeks, and then cicatrization occurred. From this time his health was good until 1864, when he had a third attack of swelling of the cervical glands in the same position as previously,—on the left side. Suppuration began in ten days, and one fluidounce was discharged every twenty-four hours during one year. Since then this amount has diminished, and at the present time is slight, although the sinus yet remains unhealed. Shortly after this third attack of suppuration he had cough and profuse perspiration, which continued for six months, and has existed at intervals up to date. He has never had a marked chill.

In June, 1866, his abdomen began to enlarge; he became prostrate, and was obliged to give up work. At this time marked jaundice existed. The enlargement of the abdomen steadily increased for one year, when it began to grow hard to the touch and was painless.

In December, 1867, he was attacked with cough, and expectorated profusely ropy sputa. During this attack he thinks the swelling of his abdomen diminished one-half.

In January, 1868, the abdominal enlargement reappeared, and has been slowly and steadily increasing.

Present state.—Patient presents a thin, anæmic appearance. Complains of debility. Fingers clubbed; appetite fair; conjunctiva clear; skin dull in appearance. Bowels are normal. The urine has a specific gravity of 1012, and is loaded with albumen; no tube-casts. A sinus left by the cervical adenitis behind the left sterno-cleido-mastoid muscle discharges a small amount of thin sero-purulent matter. The spleen is enlarged. The feet and legs are œdematous. Abdomen is tense, swollen, and hard, and appears to be occupied by a solid mass, extending from a point one and a half inches below umbilicus on right side, and on left side on a level with umbilicus, upwards as high as fourth intercostal space. The tumor rises and falls with the diaphragm in respiration. It presents no evidence of nodulation, and only severe pressure produces any pain. Its anterior inferior edge can be felt through the abdominal parietes, and corresponds in outline with the anterior edge of the liver. Tumor is everywhere dull on percussion.

There has never existed any pain in the right shoulder.

Circumference of chest on line with nipples	31 in.
" " one inch below "	32 "
" " midway between ensiform cartilage and umbilicus	34 "
" of abdomen at umbilicus	30¾ "
From symphysis pubis to ensiform cartilage measures	13½ in.
" right anterior supra-spinous process to ensiform cartilage measures	11½ "
" left anterior supra-spinous process to ensiform cartilage measures	10 "
" umbilicus to ensiform cartilage measures	8½ "
Extent of percussion dulness measures on the right side, midway between sternum and axillary region	11 "
Extent of percussion dulness measures on the left side, midway between sternum and axillary region	9 "
Extent of percussion dulness measures on the right side, from fifth rib in axillary region	9½ "
Extent of percussion dulness measures on the left side, from eighth rib in axillary region	4½ "
Extent of percussion dulness measures on the back, from one inch below angle of scapula	8 "

Treatment.—Syr. ferri iodid., gtt. xx, t. d. Ung. iodid. and belladonna, equal parts, to be rubbed on the tumor.

May 11, 1868.—Discharged at his own request. His condition remains the same as on admission.

September 21, 1869.—The patient presented himself to-day at a public dispensary of which I have charge, to be prescribed for. His general symptoms remain apparently the same, but he thinks that there has been a marked improvement in his condition. He is very anæmic, and has a tendency to epistaxis and to diarrhœa. The liver is of course still enormously enlarged, and extends below the umbilicus. The measurements of the abdomen do not differ materially from those already recorded. The urine is still highly albuminous. He is the subject of an antero-posterior curvature of the upper dorsal vertebræ. This occurred when he was a boy ten years of age, and prevented him from going to school. He complains at the present time of a constant cough, and expectorates a large amount of watery fluid, but a careful examination of the chest shows an entire absence of the signs of phthisis, and that bronchitis exists only in a moderate degree. He was placed upon the use of the iodides and of tonics, with an anodyne cough-mixture.

September 10, 1871.—I was summoned to-day to attend the patient at his own residence. Since the date of the last note, I have repeatedly seen him professionally, but, his condition remaining unaltered, I have not thought it worth while to extend unnecessarily these notes. His mother tells me that he has been doing very well lately,—that although, of course, unfit for hard work, he has been able to earn a moderate sum by running of errands. About a week ago he was treated by his uncle to three drinks. Upon reaching home, he fainted in the yard attached to the house, and was with some difficulty revived. Although able afterwards to leave the house, it was evident to his friends that he had received a severe shock. I found him in bed, breathing with some little

difficulty. His face was slightly swollen, flushed, and rather purplish in hue; his pulse was weak, but only moderately accelerated; his legs were not swollen. The physical signs presented by the abdomen were unaltered, except that there was a slight diminution in all the measurements, and notably so in the extent of dulness in the line of the right nipple. The notch between the two lobes of the liver can be very distinctly felt just above the umbilicus,—a higher point than before noted. Pressure over the hepatic region gives rise to pain, but this is not severe. There are no signs of disease of the lungs, except those occasioned by the effusion of serum into the bronchial tubes. He is somewhat excited mentally, and appears to be convinced that his illness will soon terminate in death. Tonics and anodynes were prescribed.

September 14.—The patient is evidently sinking. Since my last visit he has had another attack of syncope. He breathes with very great difficulty, and is comfortable only when propped up in bed by means of pillows. The physical signs show that there is an increased amount of effusion in the bronchial tubes. The abdomen is distended and tympanitic, probably in consequence of constipation. He is unable to pass his water. His pulse is weaker and more frequent. The heart is acting feebly, but there are no signs of cardiac disease.

I learned from his mother to day that he had several years ago (the exact date she does not recollect, but it must have been anterior to the time he first came under my observation) thrown up a large amount of purulent matter, which was frothy. Treatment continued, with the addition of a purgative.

September 15.—The patient is unconscious, and evidently dying. He has been unable to pass his water freely, but a good deal has dribbled away. Percussion shows that there is some accumulation in the bladder, but, in view of his extreme illness, it is not thought worth while to introduce a catheter. There is at the present time no dropsy of the feet, legs, or face.

Death took place a few minutes after I left his room.

A post-mortem examination was made the next day, twenty-four hours after death, in which I was assisted by Drs. John A. Hunter and George S. Gerhard.

Emaciation extreme. Rigor mortis not marked. The head was not examined. The lower part of the chest was distended by the enlarged liver, especially on the right side. Close adhesions existed on both sides between the two surfaces of the pleuræ. The bronchial tubes were filled with a frothy liquid, but the lungs were not otherwise diseased. The heart was very slightly dilated. Upon laying open the abdominal cavity, the liver was found to occupy a large part of it, extending from the level of the fourth rib above to that of the umbilicus below, and far over into the left hypochondriac region. Its surface presented a slightly granular appearance, reminding one of that presented by the hob-nailed liver. It was connected with the diaphragm and the surrounding organs by loose adhesions, which were very readily ruptured, no firm union existing between any portion of the liver and the diaphragm. Upon the upper and posterior surface of the liver was found a depression which looked a little like a cicatrix, but upon section no cicatricial tissue could be discovered. The lobulus Spigelii was pale in color, resembling bacon in appearance. The kidneys were enlarged, very pale, and, when treated with Lugol's solution, were found to have undergone albuminoid degeneration in a marked degree. The spleen was enlarged to about double its usual size, and on section showed a number of whitish nodules resembling grains of sago. Lugol's solution was applied to the cut surfaces of sections of the liver, spleen, and muscular tissue of the heart, and in all instances the reaction showed the presence of albuminoid degeneration. The bladder was moderately distended with urine. We were not permitted to remove the organs: consequently the weight of the liver cannot be positively stated. It appeared to be about from eight to nine pounds.

Small portions of the viscera were removed for microscopic examination, which showed advanced albuminoid degeneration, especially of the kidneys and liver.

The points of interest in this case are its long continuance, the decrease in the size of the liver which is said to have taken place after the expectoration of a large amount of frothy purulent matter, and the decrease which was absolutely observed towards the close of the patient's life.

The statement that the swelling had diminished after the expectoration of a large quantity of pus rested entirely on the authority of the patient and of his friends. It is most probable that he was deceived, inasmuch as the autopsy did not justify the opinion that abscess of the liver had ever existed. The deep depression on the upper surface of the liver was not found upon examination to be caused by the contraction of cicatricial tissue, and was probably due to distention of the adjacent parts of the liver from infiltration of the cells by an albuminous substance. There was, moreover, no such firm union of the liver to the diaphragm, or of the right lung to the diaphragm, as would have been found had the contents of a hepatic abscess been expelled through the lungs.

The diagnosis of the case was not difficult. The history of long-continued suppuration, the enormous size of the liver, its uniform enlargement and freedom from nodulation, the non-existence of pain even upon pressure, the characters of the renal secretion, and the length of time the disease had lasted, all seemed to point unmistakably to albuminoid degeneration as the disease under which the patient was suffering.

Although unable to cure the disease, it seemed to me that the patient was benefited by the treatment employed, which consisted chiefly in the administration of the iodides. In other cases which I have had under my care, I have given the alkalies in large doses; but my experience with them is too limited as yet to enable me to form any opinion as to their usefulness in the management of this disease.

OVARIOTOMY SUCCESSFULLY PERFORMED

IN A CHILD SIX YEARS AND EIGHT MONTHS OLD—DERMOID CYST OF THE RIGHT OVARY.

BY J. EWING MEARS, M.D.,

Philadelphia.

THROUGH the kindness of Dr. T. S. Bradford, of Augusta, Ky., I am permitted to submit the following report of a case of dermoid cyst of the right ovary, occurring in a child aged six years and eight months, in which ovariotomy was successfully performed by Dr. W. B. Barker, of Higginsport, Ohio, in whose practice the case occurred, and to whom I am also indebted for additional information in reference to the duration of the disease and the characters of the cyst.

Dr. Barker reports that he was called, May 13, 1871, to see M. B. J., who was the subject of an abdominal enlargement. She was six years and eight months old, having been born September 1, 1864. No reference was made to any exciting cause of the disease, or to any particular condition of the child's health. The mother states that the enlargement of the abdomen was first noticed in January, 1870. Seven months later she could distinguish *a lump*. The enlargement of the abdomen gradually increased, and at the time of the operation the measurement in circumference was twenty-six inches. Tapping has never been performed. On examination, a freely movable tumor, about the size of a "child's head," could be distinctly felt, occupying chiefly the right side. Regarding it as a favorable case for operation, Dr. B. advised ovariotomy, which was acceded to, and on May 16, assisted by Drs. J. J. Bradford and T. S. Bradford, of Augusta, Ky., he effected the removal of the tumor without difficulty. An in-

cision, seven inches in length, having been made in the linea alba, down to the tumor and its contents, three pints of Catawba-wine-colored fluid were evacuated by the trocar and canula. The cyst was non-adherent and easily removed. It was attached to the right side of the uterus by a pedicle three inches in length. This was ligated and the tumor removed. The incision was closed by sutures and adhesive strips, the ligature of the pedicle being drawn through at the lower portion. Cold-water dressings were applied to the wound, which was covered by a compress and flannel bandage, and the patient was placed in bed.

In nine days the ligature and sutures were removed, and in two weeks and four days the patient was on her feet, recovery taking place without any untoward symptoms.

Character of the cyst.—On opening the cyst, it was found to contain an irregular-shaped osseous mass, some hair, and fatty matter. The *bone* was attached to the internal surface of the cyst, and resembled in appearance the right superior maxilla. At one point there were projections which resembled teeth; no distinct teeth could be traced. The *hair* was found attached in part to the lining membrane of the cyst, and loose, in some secondary loculi, which also contained fatty matter. Some of the hairs were four inches in length, and the color was the same as that of the hair on the head of the child. The fatty matter was mostly contained in small secondary cysts; it was granular in character.

Remarks.—The early manifestation of the disease, and the successful termination of the operation instituted at this early period of life for its relief, render this case extremely interesting and its record valuable. With the exception of well-developed teeth, this cyst contained all of the products usually found in dermoid cysts. In size it resembled the ordinary development of these growths, which is, as a rule, much less than that which occurs in cysts containing fluids. The explanation of this is found in the character of the lining membrane of the different cysts. In dropsical cysts the lining membrane is regarded as allied in its nature to serous membrane, and possesses the property of separating the thinner elements of the blood. The only limit, therefore, to the increase in size of these cysts is that which may be offered by the walls of the sac. It is found, however, in these examples that the accumulating fluid is met by a correlative hypertrophy of the walls of the sac, which permits an enormous development, without danger of the occurrence of rupture. In a case recently under my observation, the fluid contents of an ovarian cyst measured sixty pints; and cases are recorded in which seventy and eighty pints have been evacuated at one tapping.

In dermoid cysts the contents possess a higher organization, and their development is limited to their formation. Occasionally they contain a fluid secretion in conjunction with solid contents, and their size approaches that of the dropsical cysts. Farre ("Cyclopædia of Anatomy and Physiology") quotes a case reported by Blumenbach, in which "a girl aged seventeen had a swelling of the left ovary, which, after twenty-one years' growth, measured four ells in circumference and reached below the knees. Death occurred at the age of thirty-eight, when the sac of the ovary alone weighed fourteen pounds, and contained also forty pounds of a thick, fatty, honey-like substance, mixed with short and long hairs, some two feet in length and matted together in locks. Besides these the sac contained bone and well-developed teeth."

The *fatty matter* found in these growths exists under two forms. It may occur, as in this case, as loose, granular, fatty matter filling up the cavity of the cyst, or contained in smooth-walled sacs in which loose hairs are imbedded. It may exist as masses developed beneath the lining membrane of the cyst and projecting into the cavity. These masses present the ordinary characters of adipose tissue.

The *hair* found in dermoid tumors may lie loose in the cavity, or spring from hair-follicles, which can be distinctly traced in the lining membrane. Sometimes the hair attains a considerable length, and in color it usually differs from that of the individual in whom the tumor occurs. In the case under consideration, the hair is reported to have been of the same hue as that of the child. In cases occurring in negresses, the hair is found to differ from the woolly hair of the head, being soft and smooth and of different colors.

Teeth are frequently found associated with hair and fat. They may be developed in the osseous masses, or may take their origin from the wall of the sac. In shape and form they may resemble the incisor, canine, or molar teeth of the deciduous or permanent set. Their intimate structure does not differ materially from that of ordinary teeth, as has been determined by the investigations of Prof. Owen.

The *bone* contained in dermoid cysts is usually in the form of irregular masses, which bear some resemblance to the superior maxillæ, or to portions of the vertebræ. Sometimes bony masses are found beneath the lining membrane. These appear to be collections of earthy matter, while the former possess true osseous structure.

An interesting question relates to the origin of the solid contents of these cysts. Formerly it was supposed that they were examples of the "fœtus in fœtu," or the products of an imperfect ovarian conception, or, again, examples of extra-uterine gestation taking place in the ovary. The fact that the structures are usually of the same character, hair, bone, teeth, and fat, and that they are more frequently found in one organ,—the ovary,—would seem to exclude the supposition that they are the products of imperfect ovarian conception. The failure to trace any of the peculiar membranes of the ovum, as well as the occurrence of the disease in children, in whom the generative organs are undeveloped, holds equally well against any theory as to their being examples of extra-uterine gestation.

The case under consideration affords conclusive testimony upon this point; and it is, so far as I am able to ascertain, the earliest age at which the disease is noted to have been developed.

The only satisfactory explanation which has yet been offered to account for the development of these structures in ovarian cysts is that relating to the tegumentary character of these growths, and the fact that the contents are chiefly tegumental products.

For the information in reference to the characters of these cysts, I am largely indebted to the valuable article of Dr. Arthur Farre, in the "Cyclopædia of Anatomy and Physiology."

In reference to the age at which the operation of ovariotomy was performed, this case affords an example without parallel, so far as can be determined by examination of a large number of recorded cases.

In the very valuable table of Dr. Washington L. Atlee, embracing all the known operations of ovariotomy from 1701 to 1851, and numbering two hundred and twenty-two cases, the earliest age at which the operation was performed was eighteen years.

The extensive tables prepared by Mr. Clay, of Birmingham, and published as an appendix to his edition of Kiwisch on Diseases of the Ovaries, give sixteen and a half as the earliest age.

Dr. Atlee informs me that in his experience, embracing two hundred and forty-four operations, the youngest age at which he has performed the operation is sixteen years.

I. Baker Brown (on Ovarian Dropsy) reports a case in which partial extirpation of the cyst was accomplished in a girl aged thirteen years.

The *Edinburgh Medical Journal* for November, 1870, contains the report of a case in which the operation was successfully performed by M. Jouon, of Nantes, upon a girl aged twelve years.

It may be remarked that the examination of the tables shows that, in the great majority of cases, the operations performed at early periods of life have given a larger percentage of recoveries than those performed at later periods.

A CASE OF PECTORAL ABSCESS PRESENTING SOME UNUSUAL FEATURES.

BY HARRISON ALLEN, M.D.,

One of the Surgeons to the Philadelphia Hospital.

I. B., male, æt. 55, of German parentage, was admitted to the Philadelphia Hospital, April 10, 1871. No previous history could be elicited, the patient being naturally of dull intellect. He was seriously ill: the tongue was thickly furred. Pulse 130 and weak; respiration 30 per minute. The patient was racked by a distressing cough. Upon examination of the chest from without, a large swelling was observed, extending from the median line to the posterior margin of the axilla, and from the clavicle to the seventh rib. It was divided into two distinct convexities by a sulcus running from about the sterno-clavicular articulation obliquely downwards and outwards. The plane corresponding to the pectoral muscle was flat, while its inferior margin was lost in the beginning of the axillary swelling. The nipple was displaced to the extent of one and a half inches below the line of its fellow of the opposite side. The side of the thorax from the arm to the seventh rib was tense and brawny. A diffused purplish discoloration was seen about the line of the hairs in the axilla.

The presence of coarse moist râles was detected over both sides of the chest posteriorly, and was associated with a free expectoration. The latter aided materially in weakening the patient, since it interfered with his rest.

A striking feature in the case was seen in the relation between the act of coughing and the condition of the abscess. Every powerful expiration caused a sudden abrupt wave to appear at the sternal central portion of the summit of the collection. It was at first thought that empyema was present, and that a fistulous communication existed between the left pleural cavity and the pectoral region. This opinion was soon found to be untenable, since the most careful examination showed no enlargement of the side of the chest, nor were any of the other signs of a collection of pus in the pleural cavity present. Knowing that access of air to the suppurating surface would most probably increase the exhaustion, it was resolved not to open the abscess, but to support the patient, and, by carefully watching his general condition, allow it to stand in the place of an adviser. Should it sustain itself, it would, it was thought, be best not to open the abscess; but should it give any evidence of faltering, it would become necessary at once to evacuate the contents of the collection. Under opiates, beef-tea, milk-punch, and sulphate of quinia, which were freely administered, the patient was made comparatively comfortable. His cough diminished; his pulse sank to 105, and was firmer. By the 16th instant, however, it became evident that the collection was enlarging. The wave-impulse not only increased in volume, but the "squshing" sound of the pus, as it passed to and fro from the thoracic cavity with the act of coughing, could be heard several feet from the patient's bed. It now became evident that the system would sink under the extensive suppuration.

The following day the expectoration became tenacious, closely resembling in its yellow, custard-like appearance that occasioned by the mixture of pus with sputum; and it was suspected that the collection was in part evacuating itself by the air-passage. Such, however, as was ascertained by the subsequent examination, was not the case.

On the evening of the same day, it was resolved to open the abscess. This was done by my resident physician, Dr. Emory Eshelman, who made a small superficial incision at the lowest portion of the collection near the axillary border, and, by the aid of his finger and a pair of dressing-forceps, succeeded in reaching the pus and in emptying the abscess. Fully a quart of thick, purulent matter escaped. No examination of the opening communicating with the interior of the thorax was made, such being considered not only useless but meddlesome. A large compress was placed over its position, however, and firm and equable pressure exerted over the entire left side of the chest. The removal of the pus for the next day caused him much relief; his breathing and circulation became more regular. He soon, however, again rapidly sank, and died on the 19th instant,—the fourteenth day after admission.

Post-mortem.—The abscess was found to correspond in position to the description drawn up before death. The septum noticed dividing it into two parts extended obliquely downwards and outwards, and did not correspond exactly to the division between the sternal and the clavicular portion of the pectoralis major, but occupied a position immediately below this. It actually divided the abscess into two regions, one which might be called subclavicular and axillary, and the other submammary. The first of these had for its floor the pectoralis minor muscle; at its upper portion it sank below its superior border into the subclavian space. Extending across the abscess were several arteries and nerves. The left clavicle was deformed from a badly-treated compound comminuted fracture. The evidences of the lesion were best seen at the middle of the bone. The line of breakage must have been very oblique. The upper—*i.e.* cervical—surface of the bone was perfectly smooth; the under surface, on the other hand, was very irregular. A large acuminate stalactitic process, having its origin from the anterior margin of the bone by a broad base, descended to the distance of 1″ 6‴. Its extremity rested firmly upon the anterior surface of the first rib, about an inch from its sternal attachment. The costal cartilage of this rib was completely ossified and was much roughened. The second and fourth ribs exhibited evidences of united fracture at about an inch from the edge of its costal cartilage. On the *third* rib, however, was found an *ununited* fracture, about half an inch from the distal end of the costal cartilage. It was evident that the pus had communicated with the mediastinum through the space between the fragments. All the costal cartilages were more or less ossified. The inner surfaces of all the ribs involved were covered with a thin layer of recent subperiosteal growth, the result of excitation. Upon removing the sternum, the entire anterior mediastinum was found to be lined with pus-stained granulations. The anterior surface of the pericardium and the median edges of both lungs were agglutinated by similar deposits. Laterally the anterior surface of the upper lobe of the lung of the left side was covered with "lymph" from below its central portion to near the inferior margin. Above the centre, again, and extending thence towards the apex, was found another layer of the same product of inflammation. Elsewhere the pleural cavities were healthy. The lungs were engorged,—*i.e.* congested. The smaller bronchial tubes were filled with frothy mucus. The lung-tissue was not friable, nor did a section of it sink when placed in water. There was no evidence that the abscess had communicated with the respiratory tract.

Remarks.—The communication of pus between a substernal and a suprasternal space has often been observed in cases of compound comminuted fracture of the sternum, as well as in caries of that bone. In the absence of any evidences of deformity or disease of the sternum, it is fair to conclude that the lesion in the above case was entirely connected with the ribs,—a much rarer condition, and, indeed, so far as the writer can ascertain, unique.

In lieu of a definite history, we may premise that the patient had incurred (when, where, or in what manner, is unknown) simple multiple fractures of the left clavicle and of the second, third, and fourth ribs near their costal extremities. At a time long subsequent to their date of union, a severe concussion is

received upon the anterior surface of the chest near the seat of the primary lesions,—the costal arches now being friable and brittle, and the costal cartilages in part ossified. The deformity of the clavicle is very great, and the normally slight motions of the first costal arch are entirely destroyed. A natural result of the blow, of whatever character it may have been, is to produce fracture. The third rib gives way; an abscess follows. The unusually large dimensions of the abscess find explanation when the extent of the suppurative process as occurring in a man past middle life (who was in all probability of intemperate habits, had been exposed, and, we may take it for granted, neglected) is considered.

The precaution taken in opening the collection after the method recommended by Mr. Hilton was well exemplified. An unguarded plunge of the knife into a cavity across which large branches of the axillary artery (long thoracic and pectoral) were extending, would, beyond a doubt, have caused dangerous hemorrhage.

The bedside notes of the above case were furnished me by Dr. Emory Eshelman, one of the resident physicians of the hospital.

INDUCTION OF PREMATURE LABOR IN A CASE OF CONTRACTED PELVIS.

BY HORACE WILLIAMS, M.D.,

One of the Obstetrical Physicians to the Philadelphia Dispensary.

E. F., æt. 33, is an intelligent mulatto, in comfortable circumstances. Although without apparent deformity of the spine or lower limbs, she presents, in general stature, and particularly in her cranial conformation, decided evidences of early rachitic trouble. Married at 26, her first child was born two years later, without instrumental interference, but after a seventy-two-hour labor, which was undoubtedly premature; since she informs me the child did not cry audibly for two days, and was, moreover, very small. It subsequently developed a marked rickety tendency, and was reared with difficulty. In her second confinement, at term, the forceps were applied high up, after forty-eight hours of labor-pains, the head being only slightly engaged at the superior strait, and little disposed to advance. Prolonged traction brought through a dead child, its head much elongated, and bearing marks of continued pressure, the evident cause of death. Her third accouchement, in June, 1868, was so nearly in every respect a duplicate of the preceding as to call for no special comment. The child's head bore a decided left parietal indentation, caused by the promontory of the sacrum. Catheterization was requisite several days subsequently, and there was partial paralysis of the lower limbs, of several weeks' duration.

In her fourth confinement, in August, 1870, the difficulties seemed to reach a climax. As before, the position was a little transverse from the first of the vertex. After failure of the natural powers, the forceps were applied at the superior strait, and three hours of strong traction were requisite to bring through the head, which was markedly indented on its left parietal aspect. The child, as previously, was still. Much pelvic inflammation followed; catheterization was requisite for ten days, and it was a month and a half before she recovered the use of her lower limbs. Her fifth pregnancy, in 1871, naturally caused some anxious forebodings; and, being consulted, I suggested the propriety of inducing labor at the eighth month, as a procedure affording the best chance for mother and child: the suggestion was assented to. It was apparent that the dystochia in this case arose from a diminution of the conjugate diameter, due to a bending in of the pubic rami, its effect being heightened by the oblique angle at which the pelvis is attached to the spinal column, and doubtless somewhat augmented by a pendulous abdomen. At the termination of the eighth month, reckoning by the method recommended by Dr. Duncan, a flexible catheter was passed up about six inches between the membranes and the uterine wall,—its introduction being a matter of considerable difficulty, arising from the high position of the uterine tumor, which rested on the brim of the pelvis. The catheter was expelled, after provoking a few pains, and two others subsequently introduced were similarly driven out, while the few pains thus excited died away.

September 21.—Being satisfied of a posterior fundal location of the placenta, a flexible catheter with its stylet was passed nearly to the fundus, the membranes were ruptured, and, the stilet being withdrawn, the catheter was left *in situ*. About four hours later, regular pains, accompanied by dribbling of the liquor amnii, set in, and continued through the day, increasing in frequency and severity. At ten P.M. they had effected little dilatation,—the parts being well lubricated, but the os rigid; opium suppositories were directed at intervals through the night. At four A.M. I was hastily summoned, and found the head on the perineum; the next pain delivered a well-formed, living child, corresponding apparently in age with the time-calculation. The mother and child have since done perfectly well.

Remarks.—The degree of contraction in this case seemed to offer to the operator a choice between the above procedure and the practice so much urged abroad, of podalic version at term. Assuming the septicæmic risks to be the same in both cases, it was thought that the plan detailed offered least violence to both mother and child, and that the contingency of any delay to the after-coming head outweighed the disadvantages of abridged gestation.

NOTES OF HOSPITAL PRACTICE.

UNIVERSITY OF PENNSYLVANIA.

CLINIC OF PROF. AGNEW, SEPTEMBER 6, 1871.

Reported by Dr. Elliott Richardson.

ONYCHIA.

A LITTLE girl, aged 8 years, was suffering from this disease in the thumb of the right hand.

She applied at the surgical dispensary of this institution several weeks since, with a large sloughing ulcer situated on the extremity of the member now affected, which was at that time much swollen and heightened in color. She then stated that she had had a diseased condition of this locality for several months, and that it commenced originally as a felon. Yeast-poultices were directed, which removed the slough and produced a healthy ulcerated surface, and, under the subsequent use of ungt. zinci oxidi, recovery soon followed.

A portion of the matrix had escaped destruction, and soon produced a nail, which, acting as an irritant upon the scarcely-healed ulcer, had produced this condition of onychia.

Prof. Agnew said, in regard to the treatment of this affection, that although tincture of iodine or other alterative remedies might be of advantage for a time, yet the removal of the nail, which acted the part of a foreign body, offered the only prospect of effecting a permanent cure.

While the patient was under the effects of ether, the nail was removed and the matrix destroyed by nitrate of silver. The wound was then dressed with lint saturated with olive oil. This dressing, it was directed, should be retained for two or three days, when the following solution was to be substituted:

℞ Hydrarg. Chlor. corros., gr. ij;
Aquæ, f℥j.

EPITHELIOMA.

Situated on the skin, about midway between the axilla and breast of the left side of a woman 37 years of age, was a small red point, exquisitely sensitive, surrounded within a radius of about half an inch by a marked induration or infiltration of the tissues, and showing a tendency to ulcerate, and also to extend over the adjacent surface.

The Professor thought this to be epithelioma, and advised its extirpation by the knife; but, the patient not being prepared for the operation, it was postponed.

DISLOCATION OF THE SHOULDER.

The subject of this injury was a boy, aged 17 years, who had dislocated his shoulder by a fall five weeks previous. The lecturer detailed the numerous symptoms characterizing this condition: the projection of the elbow from the side; the flatness of the shoulder; the prominence of the acromion,—all of which were evident at the first glance. The hollow beneath the acromion process, enabling the finger to be introduced between it and the head of the humerus, and the limited power of motion which the arm possessed, were other symptoms. When the arm was held out at right angles with the body, the back of a hand placed upon it just below the acromion did not project above the level of this process.

These, with the fact that the head of the humerus could be felt in the axilla, moving in response to rotation of the bone, were conclusive evidences of the nature of the injury.

Fracture of the neck of the humerus could not have occurred in this case, for although the five weeks which had elapsed since the receipt of the injury might have sufficed for the firm union of the fragments, yet, if fracture had occurred, a large mass of callus could easily be detected, and the humerus could not have retained the perfectly normal relation to its head which here existed. In recent cases, the presence or absence of crepitus is a decisive point in differential diagnosis. Motion was more limited in this case than in recent luxations, on account of the bands of adhesion which long-continued malposition of the bones forming a joint always gives rise to. These are great in number and strength in proportion to the extent of the injury done to the part at the time of accident. If the contusion has been great, adhesions are often so firm as to render all attempts at reduction fruitless, and even success is not unattended with danger of the rupture of large blood-vessels which may be involved in the inflammatory adhesions. The contusion in this case had been slight, and the prognosis was therefore more favorable than in many luxations of so long a duration. When the head of the humerus is dislocated into the axilla, the muscles attached to it, contracting, soon draw it inwards and upwards immediately beneath the coracoid process, and hold it firmly in that position.

The indications for treatment are, therefore, either to produce general muscular relaxation through the agency of ether or chloroform, or to place the arm in such a position that the contractions of one set of muscles will have the effect of counteracting those of the others, and thus enable the operator, by the application of additional force in the right direction, to bring the humerus into its normal position.

The various methods for accomplishing reduction are all based upon the last-mentioned theory, and may be briefly described as follows: First method. Place the foot or some other object in the axilla, to act as a fulcrum; then, seizing the arm, make extension downwards until the head of the humerus slips into place. Second. Draw the arm, with the elbow flexed at right angles, upwards, so as to be parallel with the axis of the body; then rotate the humerus by drawing the forearm strongly backwards over the head, and while in this position bring the arm rapidly down to the side of the chest, at the same time rotating the humerus inwards and throwing the forearm across the body. Third. Make extension directly outwards while fixing the scapula, with the foot upon the acromion. Fourth. Make extension upwards, fixing the scapula in the same manner as in the third method.

Prof. Agnew said he would not give any one method preference over the rest in all cases. Usually the administration of ether is necessary only in cases of some hours' standing. Ether was then administered, and the luxation reduced without difficulty, by fixing the scapula and drawing the arm upwards, rotating slightly during extension. A Velpeau bandage was then applied. The Professor stated that in the course of two weeks, with the occasional removal of the bandage and the application of judicious passive motion to the joint, the patient would soon have a useful arm, but he would never have as perfect use of the joint as before the dislocation, since, following such injuries, for some time there is always a great liability to the recurrence of the accident.

CLINIC FOR DISEASES OF THE SKIN, OCTOBER 2, 1871.

SERVICE OF DR. LOUIS A. DUHRING.

Reported by Dr. Arthur Van Harlingen.

ECZEMA RUBRUM OF LEG.

M. R., aged 67, Irish, and a domestic, was brought before the class for the first time one week ago. At that time she stated that she had always enjoyed good health, and previous to the present trouble had never suffered from any affection of the skin.

The present attack commenced four months ago, since which time the disease has steadily increased.

Dr. Duhring called to the remembrance of the class the appearance of the patient when she first presented herself for treatment. A patch of eruption, about six inches in diameter, extended over the outer surface of the calf of the left leg. It was characterized by the formation of thick brownish-yellow crusts, mixed with dried blood, easily detached, and exhibiting beneath a superficially excoriated surface discharging a yellowish-white fluid which stained and stiffened the stocking; the latter feature being a characteristic of this form of eczema. The surrounding tissues were red, inflamed, and somewhat œdematous, in addition to which a number of varicose veins could be observed.

In order to loosen the crusts, the patient was ordered to cover the diseased part with a thick layer of unguentum diachylon. This dressing was to be retained till the next morning, when she was directed to apply sapo viridis in small quantity, rubbing it thoroughly into the leg over the seat of the eruption for five or ten minutes, finally washing it off with tepid water. Then the ointment was again to be applied, spread evenly over strips of linen.

These applications were to be made twice daily, until she again presented herself at the clinic. No internal treatment was ordered.

To-day she reports herself much better, the itching having in a great measure subsided, so that she is now able to get a comfortable night's rest.

The improvement, however, is not so great as might have been expected; and the cause is found in the patient's admission that she has been two days without any ointment.

The lecturer impressed strongly on the class the absolute necessity of continual attention being paid to this class of cases, the neglect of treatment even for a short time being sure to be followed by relapse.

ECZEMA OF EYELID.

C. N., a German, aged 35, and a workman engaged in the manufacture of morphia, presented himself for treatment for the first time three weeks ago. At that time he presented the following appearances:

There was an excoriation the size of a nickel cent on the left eyelid, from which oozed a clear fluid, the lid itself being inflamed, œdematous, and drooping. This excoriation had lasted about four weeks, itched severely, and showed no tendency to spread.

In addition there was a papular and vesicular eruption extending over the forehead around the margin of the hair, which had been in existence about three weeks. There was no history of any venereal disease. The patient was directed to rub the eyelid and forehead thoroughly with sapo viridis morning and evening, and after washing the soap off to follow it with an application of diachylon ointment retained in place by bandages. No internal treatment was ordered.

To-day he again appears before the class, and is seen to be greatly improved.

The excoriation is entirely healed up, the eyelid has regained its normal size and appearance, and there is no longer any itching. The eruption on the forehead also is rapidly disappearing; in fact, the man is nearly well.

The lecturer said that he brought this case before the class to-day, both for the purpose of showing the effect of treatment, and also to demonstrate the correctness of the diagnosis which had been made on the patient's first appearance. The class would remember that he had called their attention to the close resemblance which was borne by the sore on the eyelid to an ordinary hard chancre. The extreme rarity of eczema appearing as a circumscribed eruption without any tendency

to spread, in this locality, rendered the diagnosis very interesting.

From the absence of any history of venereal contagion, and from the appearance of the sore itself, the diagnosis of eczema was made, the correctness of which has been verified by the result of treatment.

PRURITUS CUTANEUS.

R. N., a native of Ireland, aged 72 years.

This patient, Dr. Duhring said, the class would remember to have seen on his first appearance at this clinic, two weeks ago. He was at that time a truly pitiable object. He complained of being troubled, as he expressed it, "with a terrible itching;" so incessant and severe was it that he was prevented from sleeping, and had scarcely enjoyed a night's rest for three months past. Upon examination, no primary eruption upon the integument could be observed. There were but few excoriations, and these had been produced by scratching and rubbing.

The itching was confined to the trunk as high as the neck, and to the arms. The patient stated that he had never before had any skin-disease, and expressed himself as being in good health, with the exception of a slight irregularity of the bowels, and the itching for which he sought relief. From these symptoms it was evident that the patient was suffering from pruritus cutaneus. The class would remember that at that time he was ordered an aperient tonic mixture, as well as baths of carbonate of soda, which he was to take twice daily, remaining in the bath twenty minutes.

To-day the patient states that he has employed the treatment ordered, and that he feels himself entirely relieved of the itching. This case, then, is, strictly speaking, pruritus cutaneus, or, as some dermatologists would term it, pruritus senilis. The latter name might give rise to the idea that the disease is peculiar to old people: this, however, is not the case, as it frequently occurs in the young.

The causes of pruritus cutaneus are varied, often depending on very slight derangements of the economy; the treatment, as a rule, being adapted to whatever variation from health may be discovered.

DERMATO-SYPHILIS.

Alex. C., æt. 38, native of this city, and a chairmaker by occupation, came before the class for the first time.

He presented the following appearances. On the face was a semicircular arrangement of tubercles, small in size, just above the upper margin of the mustache. Some of these were covered with a few fine scales. He stated that they had been upon his face about four months, and were unaccompanied by itching. On the outer aspect of the left thigh were three small ulcers covered with dark scabs. These the patient stated had existed about eight weeks. He incidentally referred to having contracted syphilis, and dated the initial lesion six years back. The lecturer, however, called the attention of the class to the necessity of making a correct diagnosis in such cases from the appearances alone, remarking that the history was often misleading and could not be relied upon. The patient was ordered the following prescription:

℞ Potassii Iodidi, ʒv;
Tr. Cinchonæ comp.,
Syrupi simplicis, āā, fʒij.

Sig.—Teaspoonful three times a day after meals.

The crusts were to be removed from the ulcers by poultices, after which they were to be dressed with unguent. hydrarg. The tubercles demanded no local treatment.

BELLADONNA-POISONING.—In a case of poisoning by belladonna reported by Mr. Caruthers in the *British Medical Journal* of September 16, the following interesting observations were made: Some of the contents of the patient's stomach was applied to the conjunctiva of another patient, likewise some of her urine to another; in both cases rapid dilatation followed. Every day a drop of urine was applied to a healthy conjunctiva; and so long as the patient's pupils continued dilated, for so long was her urine capable of causing dilatation of the subject's pupils; thus showing that the elimination of the poison from the system was coincident with the return of the patient's pupils to their natural state.

PHILADELPHIA HOSPITAL.

SURGICAL CLINIC OF F. F. MAURY, M.D.,

Lecturer on Cutaneous and Venereal Diseases in the Jefferson Medic College, etc.

September 13, 1871.

Reported by Ralph M. Townsend, M.D.

STRICTURE OF THE URETHRA.

THIS patient, when nineteen years of age, suffered from an obstinate attack of gonorrhœa. During his twenty-fourth year he was seized with a like attack, but for the last six years he has remained well, being now thirty years of age. He presents himself at the clinic to-day suffering from stricture of the urethra.

Stricture may be diagnosticated by its many symptoms. Prominent among these are the size of the stream and the impeded or unimpeded flow of water from the urinary bladder. This patient seems unable to start a free flow of urine; but the embarrassment attending the attempt at micturition before a class may account for it. The presence of a stricture is best detected, however, by the passage of an instrument. In doing this, as little pain and jar to the nervous system must be given as possible. This patient has taken quinine for several days past, to prevent any chill that might otherwise follow the manipulation about his urethra. Care should also be exercised about keeping a patient well covered during an operation of this kind, and also after it.

Dr. Maury stated that he had performed this operation thirty-seven times, which was oftener, with a single exception, than it has been performed by any other surgeon in this country.

As a prelude to the operation, the patient's urethra was well injected with olive oil by means of a modified Tieman's urethral syringe. This instrument revealed the presence of a stricture just below the bulbous and anterior to the membranous portion of the urethra. From the spasm the operator felt, it was manifest to him that he had to deal with an irritable stricture. No force, however, should be used in such a case, but, on the contrary, the greatest gentleness and most careful manipulation should be practised.

After the penis had been well injected with the oil, the syringe was withdrawn, and the head of the penis firmly grasped. In the mean time, the man was told to draw his legs up and throw his thighs out; that by so doing he would relax the perineal muscles,—the abdominal muscles being also relaxed by raising the patient's head and shoulders. An attempt was now made to pass a small bougie (Sir Henry Thompson's, No. 6), but it failed to pass through the seat of stricture.

The attention of the class was here called to a peculiar circumstance: whenever the instrument came in contact with the stricture, a peculiar cough was produced. The rationale of this could not be explained, but it was stated to be of frequent occurrence.

The failure of these instruments to pass induced the operator to take the dilator of Mr. Weiss, and, after carefully oiling it, to pass it down to the seat of the constriction. Dr. Maury said he was the first surgeon in Philadelphia to operate with this instrument, in a case which came under his care in 1867. Since that time he has carefully watched the cases operated upon by this method, and has become perfectly familiar with the after-symptoms.

The present case is one not eminently favorable for an operation; but the seat of the stricture is that favorable for the use of the rupture-instrument, being anterior to the triangular ligament. If the stricture be seated posterior to the triangular ligament, this method of operation becomes dangerous, and should not be pursued.

The point of the dilator refusing to pass the stricture, the index-finger of the surgeon's left hand was well oiled and carefully introduced into the rectum, so as to aid the passage of the point of the instrument along the floor of the urethra. This failing to have the desired effect, the rupture-instrument was withdrawn and a Sir Henry Thompson dilator introduced in its stead. This latter instrument was passed through the stricture until its point rested in the prostatic urethra, and the latter was stretched much in the same manner as the finger

of a glove. After the withdrawal of this instrument, the operator passed a No. 6 sound, but it was clasped on its withdrawal at the seat of stricture. This induced the Weiss instrument to be entered the second time, when its point passed the stricture. An assistant now held the penis while the stylet was driven in up to its hilt, thus rupturing the narrowed portion of the channel. Before withdrawing the instrument, it was rotated upon its long axis, and after its withdrawal a No. 10 sound was easily passed into the bladder.

After the operation the man was well wrapped in blankets, given ten grains of quinine, and put to bed. Fifteen minutes afterwards a quarter of a grain of morphia was administered. These remedies should not be given simultaneously, as they are apt to produce nausea.

This man will not be permitted to get out of bed under any circumstances. He will receive mucilaginous drinks, such as barley-water, and no instrument will be introduced into his bladder for three or four days. A month, if everything goes favorably, will make a great change in his condition; but he must exercise constant care, and is always in danger of relapse when he ceases to follow appropriate directions.

September 20.—This patient was again brought before the class, looking haggard and pulled down from the effects of the bursting of his stricture. The operation for stricture is a serious one,—always troublesome and often dangerous,—and the most judicious after-management is required. Care is still being exercised in keeping this patient well protected with blankets.

This man has now a urethritis something like a gonorrhœa, which is a constant concomitant of operations of this kind. It is a gonorrhœa, but it is non-specific; yet if he had intercourse with a woman she would have a similar condition,—not a genuine gonorrhœa, but an irritable condition which strongly resembles that disorder. A man should be told, therefore, after an operation of this kind, to desist from intercourse until the urethra is healed.

A No. 8 sound was now well warmed and oiled, and introduced as far as the point of the stricture. Slight spasm ensued, at the same time revealing a rough, jagged, and semi-cartilaginous condition of the ruptured parts. A larger sound (No. 10) was now introduced,—the smaller instrument having been withdrawn,—and readily entered the bladder. The reason for this is that the sharp point of the smaller instrument pressed directly against the stricture, and the moment it did so spasm resulted, which prevented the instrument from going farther. The tactile sensibility of the operator recognized this condition. The larger instrument, however, dilated the urethra along its whole length, and so gradually overcame the constriction before absolutely reaching it.

When this patient again comes before the class, a No. 12 sound will be passed.

INJURY TO THE CERVICAL VERTEBRÆ.—Dr. Fayrer reports an interesting case of injury to the vertebræ, in the *Indian Medical Gazette* for June 1, 1871. A little girl, 6½ years of age, was taken up by the head and lifted from the bench on which she was sitting to a table distant some feet. The child felt some pain, heard something snap, and found that her head was twisted to one side, and that she could not return it to its natural position. There was considerable mobility, and, considering the nature of the lesion, wonderfully little pain. The head could be rotated in every direction. Considerable flexion and extension were practicable, but the distortion remained, and there was a marked bony prominence, which was believed to be the right lateral process of the sixth or seventh cervical vertebra. She was placed under the influence of chloroform, and a careful examination made, during which it became evident that there was not only dislocation but also fracture of the transverse process; and after returning the parts as nearly as possible to a natural position, it was not deemed prudent to use any further interference, and the child was placed in a recumbent posture, with instructions to keep her so, and support the head on either side with a pillow stuffed with sand. A week after the accident the child was reported to be well and free from pain. A certain amount of distortion, however, remained.

ADDISON'S DISEASE.—Dr. Finlayson reports in the *Glasgow Medical Journal* for August, 1871, a case of this disease. The following is a catalogue of the symptoms in the order of their appearance: Languor, feebleness, and impaired appetite; discoloration of the face, neck, and hands; pains in the back; profound asthænia; occasional vomiting; discoloration of the mucous membrane of the mouth; hiccough; discoloration of fresh portions of the skin; giddiness; mistiness of eyesight; slight diarrhœa; fever; delirium; tremors, unconsciousness, and death. Dr. Coats, who made the microscopical examination, reports that the left capsule is very much larger than the right, weighing one ounce and six drachms. On section, it is seen to be in great part made up of a yellow, cheesy, opaque mass, and this mass is divided chiefly into two portions,—one, about the size of a flattened walnut, at one end of the capsule, and the other, about the size of a hazel-nut, at the other end. The large mass in some parts is pretty firm in consistence, but in other parts it is soft, and presents one or two distinct cavities filled with opaque yellow fluid; these cavities are in its more central parts; but at the periphery, and close under the external wall of the capsule, there is an infiltration of thick, yellow fluid, which has to a certain extent dissected the internal mass from the internal wall. The yellow fluid externally and in the central cavities is found, on microscopic examination, to be pus, whose cells are in an advanced state of fatty degeneration, while pretty abundant free fat-granules float in the fluid. The smaller cheesy mass presents similar central and peripheral collections of degenerate pus. On section for the microscope there is seen to be a thin layer just at the periphery of the organ, which presents the same infiltration with round cells which exists in a much greater area in the right capsule. The cheesy central mass again shows very marked fatty degeneration; and the parts which are fatty are arranged in a somewhat irregular reticulated network, composed chiefly of oil-granules, but in which are interspersed several large brownish irregular bodies, which present some resemblance to the granular bodies that form the main constituent of the normal capsule; but here they are irregularly scattered, and only in rare cases do they show a slight approach to the arrangement in rows. The interstices of the network are much more transparent, and present a few oil-granules, but no apparent structure.

"From the consideration of these microscopical characters, especially the comparison of the condition of the right capsule, where the disease is obviously much more recent, with that of the left, it would appear that the primary process is an extreme infiltration of the entire tissue of the capsules with round cells, and these subsequently undergo fatty degeneration and form the central cheesy mass." From the microscopical appearance Dr. Coats concludes that the case is one of local tuberculosis of the suprarenal capsules.

ELECTRO-THERAPEUTICS.—Dr. Oskar Berger, of Breslau (*Schmidt's Jahrbücher*, Bd. 151, Nr. 7, 1871; from *Berl. Klin. Wochensch.*, viii. 2, 1871), has treated twenty-five patients suffering from tic-douloureux by electricity. In most of the cases the disease was of long standing and other remedies had failed. A large damp disk was attached to the positive pole and applied to the painful part, while the negative pole was placed in any position, but generally on the hand. The constant current, strong enough to cause a moderate amount of pain, was used. Twenty-two of the twenty-five patients were cured by this treatment. A few relapses occurred, but yielded readily to a reapplication of the same treatment. He has found it also useful in other forms of neuralgia. In hemicrania he has found it useless, as he failed to effect a cure in any of the twenty cases in which it was tried, although the points to which the electrodes were applied were constantly changed.

LIGATURE OF THE CAROTID AND SUBCLAVIAN ARTERIES.—Mr. James Lane (*Lancet*, September 23) recently applied ligatures to the right carotid and subclavian arteries in a female patient at St. Mary's Hospital, suffering from an aneurism at the root of the neck, presumed to arise from the innominate artery. This is the third time that simultaneous deligation of these two important vessels has been performed in England, the other operations having been undertaken by Mr. Heath and Mr. Maunder.

PHILADELPHIA
MEDICAL TIMES.
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EDITORIAL.

A LEADING newspaper in New York recently took occasion to say that in any controversy between the members of the medical profession and irregular practitioners of medicine it would always be disposed to side with the latter, and gave as a reason for this opinion that many of the most valuable additions to the materia medica had been made by these, and that the former had always shown themselves unwilling to accept discoveries without great opposition, and that this was notably true in regard to the discovery of the circulation of the blood by Harvey, and that of vaccination by Jenner. The sentiment is certainly not a generous one, and it is the object of the present editorial to show that it has very little foundation in fact.

In the first place, opposition to the regular profession can scarcely be very intelligent which arrays itself on the side of quackery generally; for there are so many phases of this, and these are often so contradictory, even when, as in the case of homœopathy, many are comprehended under the same name, that, admitting for the sake of argument that we are wrong, and making no allowance for the want of education of our opponents, it must necessarily follow that the majority of them are equally in error. We have often heard the reproach that physicians change their views too readily, and the revolution in medical practice which has taken place within the last century has been frequently assigned as a reason for a want of faith in medical science. We are therefore accused at the same time of holding to old views simply because they are old, and of too great a readiness in adopting new. Neither accusation is just; for the members of the medical profession, while adhering to old theories as long as they are not disproved, and abandoning them, it may be, in some instances with regret, have at least in later times shown as great a readiness as the professors of any other science to subject every asserted improvement to the proper tests before either adopting or rejecting it. We do not believe, moreover, that at any time discoveries met with more opposition from physicians than from others. To take one of the instances to which our critic alludes,—Harvey's discovery of the circulation of the blood. This was publicly taught in the course of lectures delivered by him as Lumleian lecturer about 1615; but it was not until 1628 that his views were given to the world, in the treatise entitled *Exercitatio Anatomica de Motu Cordis et Sanguinis*, when, we are informed by his biographer, they immediately attracted the attention of all the better intellects among the medical men of Europe. Opposition they certainly did meet with, but this generally came from men who were already committed to other theories, and who had probably arrived at an age when it is not easy to lay aside old convictions. This undoubtedly was the cause of the hostility of Parisanus, Veslingius, and Hofman. Moreover, this opposition seems to have come principally from the Continent, for we learn from the same authority that Harvey had succeeded in winning over to his side all the men of his own country who by their education and acquirements might have been fitted to array themselves against him: his lectures at the College of Physicians had apparently satisfied all his contemporaries. Hofman, towards the close of his life, appears to have made a reluctant avowal of his belief in the correctness of Harvey's views. Another evidence that he was held in high esteem by the eminent men of his day is afforded by the fact that soon after his appointment as Lumleian lecturer he was chosen one of the physicians extraordinary to the reigning monarch, James I.; and he was further guaranteed the reversion of the office of ordinary physician whenever, by death or otherwise, a vacancy should occur,—which, however, did not take place until the reign of Charles I. This connection with the court probably as much as any other cause occasioned the loss of practice which Harvey is said to have suffered soon after the publication of his treatise, although there may have been a few of his former patients and a few physicians who, as John Aubrey tells us, considered him "crackbrained."

Among the contemporaries of Harvey was Galileo; and we need not recall to our readers how bitter was the opposition which greeted the announcement of his opinions, not merely by the authorities of the Roman Church, by whom his opinions were considered heretical, but also by the Aristotelian philosophers of his time. Is it not, then, unfair to speak of the hostility which was manifested by a few, and for a short time, towards Harvey as an evidence of the want of liberality of physicians, who were then, as they are now, as enlightened as any other class of educated men?

The case of Jenner is perhaps even more strongly in our favor. At a very early period of his professional career he appears to have become convinced that the cow-pock, if successfully inoculated, would afford protection to man from smallpox. He certainly did not receive much encouragement to proceed with his investigation from his fellow-physicians, although there were some exceptions to this rule, and John Hunter was among them; and it was some time before he had an opportunity of putting his views to the test of experiment. On the 14th of May, 1796, he vaccinated a boy aged 8, who is said to have passed successfully through the various stages of the disease. Two years later he published his first memoir on the

subject, entitled *An Inquiry into the Causes and Effects of Variolæ Vaccinæ*. The practice of vaccination met with a good deal of opposition and some little ridicule, but in less than three years after the first successful operation, and in less than one after the publication of his memoir, seventy of the principal physicians and surgeons of London signed a declaration of their entire confidence in it; in the following year he was presented with a medal by the Physicians and Surgeons of the Royal Navy, and he was subsequently elected a member of several learned societies; and we learn from Baron's Life of Jenner that

"Among the many marks of public approbation and respect which were presented to Dr. Jenner at this period of his philanthropic career, none afforded him higher gratification than those offered to his fame by his professional brethren; inasmuch as these were the best testimonials of his merit as a discoverer, and of the greatness and universal advantage of the discovery itself. He was in the early part of this year, 1802, addressed on that subject in the warmest terms of congratulation and approval by the Medical Society of London, of which he had long been a member. At a full meeting, held on the 29th of March, it was unanimously resolved, 'That, taking into consideration the important discovery of Dr. Jenner, the members of this society are of the opinion that great benefit will accrue to the inhabitants of these islands, and to mankind in general, from the introduction of vaccine inoculation; and from their own experience, as well as from the extensive trials made in various parts of the world, that it will, in all probability, ultimately eradicate smallpox, one of the most fatal diseases to which the human species is liable.'"

It was not until some months later that he was voted by Parliament the sum of £10,000, which was afterwards increased, partly in recognition of his merit as the discoverer of so great a boon to the human race, and partly as some compensation for the expense incurred and the time spent in bringing it to public notice. Several physicians willingly gave testimony in favor of the grant; and soon after the debate in Parliament, Dr. Lettsom wrote as follows:

"I was truly chagrined on seeing the niggardly reward voted by the House; and had double that sum been asked, it would have been granted. However, as an individual, I am not disposed to let the matter rest here, but immediately to set on foot a subscription that should invite every potentate and person in Europe, America, and Asia, because every avenue of the globe has received, or may receive, your life-preserving discovery. This subscription should not be for you, but it should be a fund, the interest of which should be forever devoted to the name of Jenner."

Baron tells us that

"These liberal sentiments were generally shared by almost every respectable professional man in the kingdom; and at a future time they were adopted by the nation at large, through the medium of their representatives. Dr. Pearson alone, I believe, opposed the general feeling."

When we consider the repugnance to vaccination which is manifested by many even at the present day, we can scarcely accuse the physicians of the close of the last century and of the beginning of this of an unreasoning opposition in having waited for some demonstration of the truth of Jenner's assertions before being willing to subject those who were committed to their care to the operation; and it is also to be remembered that not merely was the prejudice which the physician himself might entertain to be overcome, but also that of his patients.

Passing now to the consideration of the additions made to the materia medica by irregular practitioners, these are believed to be very few; in fact, it would be difficult to name any really valuable drug a knowledge of the therapeutic properties of which has been acquired solely in this way. We shall, no doubt, be met by the assertion that the properties of cinchona were known to the aborigines of South America, and by them revealed to the early Spanish settlers, by whom they were communicated to the government of Spain, and that the Countess del Cinchon had much to do with the introduction of the medicine into Europe. It is, moreover, true that there were some physicians who were adverse to its use; but, if we carefully consider its history, we shall find that the opposition to its use arose quite as much from religious as from professional intolerance. Among the most active in bringing it into general notice was Juan de Lugo, a Jesuit, from whom it derived its then popular name of Jesuits' bark. This arrayed the Protestants against it, who opposed its introduction simply on this ground; and hence it is that physicians were so long in discovering and profiting by the valuable properties of this drug.

Need we remind our readers how many valuable remedies have been placed within our reach by the patient observation of physicians, and how freely the valuable additions made by the chemist to the list of the materia medica have been applied to the cure of disease, until it would really seem that the reproach might be made with more justice that we are too much inclined "to prove all things," too little "to hold fast that which is good"?

THE IMPORTANCE OF REVACCINATION.

WE are glad to see that the Board of Education of the First District in this State has directed the Principals of the Public Schools in this city to enforce rigidly its rule concerning vaccination, which provides that no child who has not been vaccinated shall be admitted or continued as a pupil in any school. We regret that it has not gone further, and directed that every pupil who has reached the age of puberty shall be revaccinated. There is no question that there is a tendency to the progressive weakening of the protective power of the vaccine disease by lapse of time, and that individuals become again susceptible to the vaccine disease. Dr. Ballard, the author of a prize essay on vaccination, and Dr. Seaton, the author of "A Handbook of Vaccination," have reached the same conclusion, and we shall therefore quote only what the first-named writer says on this point:

"Considering the progressive loss of protection imparted by infant vaccination in a proportion of vaccinated persons, and the impossibility of distinguishing between those in whom it has and those in whom it has not occurred, and also considering that a large number of persons are more or less endangered by the return of capability for developing the smallpox virus, and considering further the special liability to smallpox during the years immediately following the establishment of puberty, revaccination is to be strongly recommended for *all* persons at the age of about sixteen years. Such persons so vaccinated may be regarded as permanently protected, and there is no occasion for any further repetition of the process."

In regard to another point on which the popular mind is very much disturbed, the inoculation of syphilis by vaccination, Dr. Ballard says,—and Dr. Seaton holds the same opinion,—

"That, although it cannot be denied that such a danger exists, it is one the practical bearing of which has been very much exaggerated. It is a danger practically insignificant, and there is no reason whatever to believe that it exists to such an extent as to detract from the value of arm-to-arm vaccination, as a popular practice of general applicability; and, even were the danger greater than it actually is, the adoption of a few simple precautions on the part of the vaccinator would render the inoculation of syphilis in vaccination almost an impossible event."

CHICAGO MEDICAL STUDENTS.

A GRATIFYING evidence of the good feeling which exists among the faculties of the different medical colleges throughout the United States is afforded by the action of Dr. Rogers and of Dr. Rand, the deans respectively of the Medical Department of the University of Pennsylvania and of the Jefferson Medical College, in telegraphing to the deans of the Chicago Colleges that the institutions of which they are officers would gladly receive free of charge all students of these colleges. The members of the medical profession have not, as a rule, the means to contribute pecuniarily to the relief of the sufferers by the recent fire; and we are glad, therefore, that the faculties of our colleges have come forward in a way which, while it indemnifies a very large and deserving class for their loss, must show our brethren in Chicago how sincere is the sympathy which the physicians of Philadelphia feel for them.

Since writing the above, we have learned that there will be no interruption to medical teaching in Chicago, and that a committee of physicians has been appointed to solicit contributions from members of the profession for the sufferers by the fire. From a correspondent we learn that in Brooklyn a little more than a thousand dollars in currency has been collected by a committee of the Medical Society of the County of Kings, which is to be applied exclusively to the relief of members of the profession in Chicago, and that Dr. Delaskie Miller, of Chicago, is the proper person to whom to send sums of money intended for that purpose.

EXTRACTS.

[From the Journal of the Franklin Institute, August, 1870.]

CHEMICAL THEORIES.

BY B. HOWARD RAND, M.D.,
Professor of Chemistry in the Jefferson Medical College.

IN the June number of the *Journal* is a communication from Prof. Albert R. Leeds, in which he says, in regard to the so-called dualistic and unitary theories in chemistry, "The few who cling to their ancient beliefs have ceased to defend them, and only plead the inaptitude of old age, or the bias of early education, in defence of their loyalty. But now that the unitary theory has prevailed, it is intolerable," etc.

Inasmuch as some chemists not without note, including Bunsen, Berthelot, Fremy, Bloxam, Taylor, and Fresenius, still "cling to their ancient beliefs," and as a very good defence of the same may be found in Brande and Taylor's Chemistry, or in Bloxam's latest edition, it seems that the subject is fairly open to discussion.

The *facts* of chemistry are ascertained by experiment: no theory can alter them in the least. Theory is merely a convenient method of arranging the facts and aiding the memory. We have two theories in electricity,—the one-fluid and the two-fluid theory. Either is convenient in explaining the phenomena; yet I think that no one believes at the present day that electricity is a fluid. The language is retained, for convenience, to be abandoned when we learn more of the true nature of the agent.

Chemistry gives us, by analysis and synthesis, the percentage composition of a body,—that is, the elements entering in it, and the proportions in which they are combined; more than this it cannot do. Knowing the percentage composition of a body, or its *empirical* formula, we conjecture as to the arrangement of the constituents, and make what may be called the *rational* formula. It does not alter the nature or properties of sulphuric acid that we write its formula HO SO_3, or H SO_4, or HO_2 SO_2, or HO_3 SO, or O_4 HS, etc.; nor do we know, nor shall we ever know, the true arrangement of the elements in other than the simplest binary compounds. Hence we have a right to take any view which will most easily classify our facts.

Let us consider a single example. Potassium and oxygen unite to form a compound which, when combined with the elements of water, has been called caustic potassa. Sulphur and oxygen unite to form, among other compounds, sulphuric acid, which, when combined with the elements of water, forms the well-known oil of vitriol. These are plain facts, the result of experiment. If we mix these bodies in proper proportion, a compound is formed, the sulphate of potassa or "potassic sulphate." The "old" theory simply supposes that the acid united with the base, the water of each being eliminated. This may be true, or it may not, but no one can tell. It is a simple view, and has the advantage of being easily comprehended and of aiding the memory.

If we take the formula for alum, we shall see still more clearly the advantage of the old system in aiding the memory. We suppose that the sulphate of potassa above mentioned, KO SO_3, unites with another sulphate, say of alumina, Al_2O_3 3 SO_3, and that the two combine, and, in crystallizing, take up twenty-four equivalents of water. The student readily comprehends this, and can easily remember the method of manufacture and the constitution of the compound. Its apparently long formula, KO SO_3 + Al_2O_3 3 SO_3, + 24 HO, thus becomes easy. He can then be shown

how it is possible to replace the potassa with soda, ammonia, etc., and the alumina by other sesquioxides, still retaining the type and crystalline form of the original.

Thus: $KO, SO_3 + Al_2O_3, 3\,SO_3 + 24\,HO$.
NaO Mn_2O_3
NH_4O Cr_2O_3
CsO Fe_2O_3
RbO
TlO
AgO

If we take the unitary formula, these advantages are in great part lost. Thus, in Fownes' Chemistry, the formula for alum is given as $(SO_4)_2\,Al'''\,K.\,12\,OH_2$, while that of the "aluminium sulphate" or sulphate of alumina, which is absolutely put into the salt in its manufacture, is $(SO_4)_3\,Al'''_2\,18\,OH_2$. How is the student to remember such formulæ, and how is he to account for the change which "aluminium sulphate" undergoes when simply crystallized in company with "potassic sulphate"? Certainly the older formulæ are quite as reasonable as these.

Since the time of Lavoisier the balance has been the test of chemical truth. By its aid the equivalents of the elements have been determined, and for years the simple and natural method of taking the combining weights of bodies for comparison was followed. Since the introduction of "molecular" weights, as might be supposed, there has been "a most admir'd disorder." Each chemist may assume molecules according to his own theory, and the whole notation and nomenclature of chemistry is thus shifting constantly. The July number of the *Journal* contains some analyses of minerals, by Prof. Leeds. His formulæ for the silica, alumina, etc. are as follows: SiO_2, Al_2O_3, Fe_2O_3, MgO, CaO, Na_2O, K_2O, H_2O, evidently unitary formulæ, as shown by the Na_2O, K_2O H_2O. In the *Verhandlungen des Naturhistorisch-Medizinischen Vereins zu Heidelberg* is given an analysis, by Prof. C. W. C. Fuchs, of a clay, the paper having been read March 4, 1870. His formulæ are SiO_2, AlO_3, FeO_3, H_2O, CaO, MgO, K_2O Na_2O. Which of the discordant formulæ is *the* unitary one? It would be easy to multiply instances from the books and papers in which the so-called molecular formulæ are found. It would seem that these theorists are like Burke's "architects of ruin," attempting to pull down and destroy, but effecting nothing solid in return.

Still more unfortunate is the disregard of facts by the enthusiastic unitarians. When the facts do not agree with the theory, "so much the worse for the facts." Without attempting to go over the ground of equivalent volumes, which is full of instances, I merely take their theory of the formation of salts.

The "ancient" dogma was that "a salt is formed by the union of an acid with a base, or of a halogen body with a metal." This is simple fact; whether the acid and base remain as such in the compound is not known, nor is it material. It is convenient to suppose that they do. The unitary theorists *assume*—first, that an *acid* is a compound containing hydrogen, the whole or part of which is displaceable by a metal. Second, that a *salt* is a compound derived from an acid by the displacement of the hydrogen by a metal. This includes the simple theory of Davy, that the hydrated acids should be looked upon as compounds of hydrogen with an unknown electro-positive body formed by adding the oxygen of the base to the dry acid, and the more complex water-type theory of salts. Neither is in accordance with known facts. We can reasonably enough write $H\,SO_4$, $K\,SO_4$, etc., although SO_4 is unknown, because it is not new to assume the existence of a non-isolable body; for instance, that of ferrocyanogen. There are, however, facts which cannot be ignored, and there are considerations which render this view quite untenable. Thus:

1. Certain acids, as CO_2, AsO_3, CrO_3, SO_2 (at common temperatures), do not combine with water; hence they cannot truly be written $H\,CO_3$, $H\,AsO_4$, etc.: yet they are so written in unitary works.

2. We have well-marked sulphur-acids, which certainly do not contain replaceable hydrogen.

3. This view compels us to suppose in the bichromates, bicarbonates, etc., distinct and wholly different acids from those in the monosalts, which experiment does not show to be true. Thus, $Na\,CO_3$, $Na\,H\,C_2O_6$; $K\,CrO_4$, $K\,Cr_2O_7$, and even $K\,Cr_3O_{10}$. We are also compelled to admit that the phosphoric acid in the meta-, pyro-, and ortho-phosphoric acid is not the same, but that there are in these bodies substances as distinct as are sulphurous and sulphuric acid. Thus, $H\,P_6O$, H_5PO_7, H_3PO_8. This is altogether contradicted by the properties of the acid, the characters of its salts, and the facility with which they assume and part with the elements of water, being thereby transformed the one into the other. The many other objections in point of fact and reason need not be stated. The type theory, so well suited to the study of the complex, and therefore elastic, substitution compounds of organic chemistry, is ill adapted to the simpler and less flexible bodies, generally included under the head of inorganic chemistry. Thus, to represent the pyrophosphates, we must assume four molecules of water as the type; thus (using molecular symbols), $\frac{H_4}{H_4}\Theta_4$. Then "pyrophosphate of sodium" would be $\frac{Na_4}{(P_2O_3)''''}\Theta_4$, and "acid phosphate of sodium" $\left.\begin{matrix}Na_2H_2\\(P_2O_3)''''\end{matrix}\right\}\Theta_4$. (*Bloxam's Chemistry*, p. 256.) What a contrast to the simplicity of the "ancient" formula, 2 NaO, PO_5; NaO, HO, PO_5! What is gained by the change?

It is not necessary to add more. I only wish to show that there are reasonable grounds for holding certain theoretical views which are by some believed to be accordant with facts, and certainly much more simple than those by which it is sought to replace them.

CORRESPONDENCE.

To the Editor of the Philadelphia Medical Times.

SIR,—I noticed a day or two since in one of the newspapers a statement that, at the suggestion of the Pennsylvania Railroad Company, the vaccine physicians either have been, or are to be, ordered by the Board of Health to attend, on a certain day, at the depots of the various railroads running out of the city, for the purpose of vaccinating their employés.

Perhaps there is some mistake about this. If not, it seems to me a most unjustifiable demand upon gentlemen appointed by the city to vaccinate, at a small rate of compensation, the poor. Surely the railroad companies can afford to pay physicians—and to pay them a fair fee, too—for such a service; and they ought not to ask for an extension to them of any public charity. I trust the vaccine physicians will decline to be thus imposed upon, and that the entire profession of Philadelphia will sustain them in so doing.

Yours respectfully,

October 18, 1871. P.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY, SEPTEMBER 28, 1871.

THE PRESIDENT, DR. JOHN ASHHURST, JR., in the chair.

DR. MEARS presented a portion of the *angle and body of the inferior maxilla*, which he had removed by internal incision from a woman, aged 28, at the surgical clinic of the Pennsylvania College of Dental Surgery. Nine months since, the patient had an attack of periostitis, involving the bone about the region of the last two molar teeth, which were carious. About a month after the attack, suppuration ensued, causing the discharge of very offensive pus into the mouth, and eventually abscesses pointed in the neck below the jaw. The teeth were extracted, and the bone was found to be diseased. Three months since, an attempt was made to remove the necrosed bone by an external incision. At that time it was not sufficiently detached to permit of its removal. During the first three months of the attack the jaws were firmly closed, and the side of the face very much swollen. The patient gives a syphilitic history.

In reply to a question of Dr. KEEN, Dr. M. said he thought the partial anchylosis had resulted from inflammation extending from the masseter muscle to the structures surrounding the joint. He also stated that there was less difficulty in this respect since the operation.

Dr. JOHN ASHHURST, JR., exhibited the *specimens from a case of excision of the hip-joint*, including the os innominatum and upper portion of the femur, the lungs, heart, kidneys, and a portion of the liver, from a patient who had died at the Children's Hospital on September 27, nearly a year after the operation of coxo-femoral excision for hip-disease.

The patient, a strumous-looking boy, nine years old, came under Dr. Ashhurst's care in the summer of 1870, suffering with hip-disease of the femoral variety, which had advanced to the third stage: there were two sinuses, one on the front and the other on the back of the thigh, and the patient was gradually failing from the exhaustion produced by continued suppuration. Excision was performed on Oct. 14, 1870, the head and neck of the femur and the necrosed rim of the acetabulum being removed. The caput femoris was reduced to a small nodule, and the neck of the bone had undergone the change in shape which characterizes the advanced stages of hip-disease.

The patient did well for a good while after the operation, in January, 1871, was able to get up, and in February could walk with a single crutch and a high-soled shoe. During the ensuing summer, however, he was very much prostrated by repeated attacks of diarrhœa, and it became evident that bone-disease had returned at the site of excision. After having been taken from the hospital for a fortnight, by his parents, he was brought back in the early part of the present month (September), in an obviously hopeless condition.

A week or ten days before death, the excision-wound, which had never entirely healed, reopened to its full extent, and the sawn extremity of the femur, covered with pale and close-set granulations, protruded. The diarrhœa persisted more or less continuously, and the emaciation during the latter periods of life was extreme. The wound became gangrenous the day before death.

An autopsy was made by the house-surgeon, Dr. Valdivieso, some eight or ten hours after death, when the following lesions were observed:

Hip.—The os innominatum was slightly roughened above and at the position of the acetabulum; the extremity of the femur was exposed and carious, and the remains of its periosteal covering discolored as if from incipient sloughing.

Chest.—Both lungs, but particularly the right, were studded with tubercle, which in the upper lobes on each side had advanced to the stage of softening. The left pleura was firmly adherent to the thoracic parietes. The heart contained both currant-jelly and fibrinous coagula.

Abdomen.—The stomach was much enlarged; the liver was enlarged, pale, and apparently fatty; the spleen was much enlarged; the left kidney was atrophied, and the right much enlarged, pale, and fatty, and containing one or two masses of yellow caseous matter.

In reply to a question of Dr. MEARS, Dr. A. stated that recovery after this operation had actually occurred at an age beyond 50, but such a favorable result in adult life was very rare. Beyond 30 years of age, Dr. ASHHURST said, the mortality had been 88 per cent. of terminated cases.

Dr. J. H. HUTCHINSON presented the specimens from a case of *amyloid disease of the liver*, for a full account of which see original communication in the current number of the *Times*.

REVIEWS AND BOOK NOTICES.

THE FEDERAL GOVERNMENT: ITS OFFICERS AND THEIR DUTIES. By RANSOM H. GILLET, formerly Member of Congress, etc. 12mo, pp. viii., 444. New York, Woolworth, Ainsworth & Co., 1871.

Upon receiving the above work, we were somewhat nonplussed at the oddity of the situation. The book seemed so out of place—so malapropos to the subjects usually treated in a medical journal—that we suspected some mistake had been made.

On reflection, however, the purely American side of practice of physic became so apparent, that we were disposed to view the work in a different light, and have come to regard it as a godsend to the great mass of practitioners.

Not as physicians, but as intelligent men engaged in politics, hundreds of our country doctors stand in need of just such a concise, clear statement of governmental organization as is afforded by this book. The physician is a man of importance in the community, and is expected to know all things, as well as to do, and much oftener to suffer, all things, and therefore he welcomes all sources of knowledge on every variety of subject.

We are happy to state that this work is the production of a skilful lawyer, and is brief, well written, and very readable.

HANDY BOOK OF THE TREATMENT OF WOMEN'S AND CHILDREN'S DISEASES according to the Vienna Medical School, with Prescriptions. By DR. EMIL DILLONBERGER. Translated from the Second German Edition by PATRICK NICOL, M.B. 12mo. Philadelphia, Lindsay & Blakiston, 1871.

This little work is one of the numerous aids to knowledge which do so much harm to the medical student. Physicians do not require it, and students will be more benefited by practical instruction in the subjects of which it treats. But as an example of Continental practice, it is a fair representative of the treatment which is there in vogue, and which may be described as the rationalistic method: except, however, for the purpose of showing us what is being done in Germany, it is of little value.

The large number of prescriptions intercalated with the text should be taken as an insult by every well-educated practitioner, since they intimate that the reader is unacquainted with the veriest rudiments of pharmacy. On the whole, comparing this little volume with the treatises of Scanzoni, Simpson, Meigs and Pepper, Rilliet and Barthez, we would reiterate our conviction that such books as this one are of no use to intelligent men, and that others may just as well be without them.

THE PHYSIOLOGICAL ACTION AND THERAPEUTIC USE OF CHLORAL. By J. B. ANDREWS, M.D., Assistant Physician to the New York State Lunatic Asylum. Reprinted from the *American Journal of Insanity* for July, 1871. Pamphlet, 8vo, pp. 24. Utica, N.Y., 1871.

From the results of several experiments with chloral upon different persons, and aided by the sphygmograph, Dr. Andrews concludes "that—1. The effect of chloral is to reduce the number of pulsations. 2. That the primary action is to increase the force of the heart's action and arterial tension.

3. That in large doses within safe limits the pulsations are not reduced in number proportionately to the size of the dose, but the effect is more prolonged. 4. That the secondary effect is to diminish the force of the heart's action and the arterial tension."

These results are identical with those produced by nearly all sedatives, excepting perhaps veratrum viride and bromide of potassium; but the hypnotic employment of chloral has many advantages over all other methods of inducing sleep. These may be condensed into the aphorism that chloral produces no after-effects, except (and this is important) in cases of cardiac debility. We have personally experienced its paralyzing action upon the heart on more than one occasion, when recovering from an attack of pericarditis and endocarditis, from which our life was only saved by the free use of diffusible stimulants. As the dose in our case at no time exceeded fifteen grains, and since other observers have noticed the same result in other cases, we are surprised that Dr. Andrews does not speak of the danger of its use in cardiac affections. However, such an oversight may be accounted for. Dr. Andrews bears witness to the value of chloral in insanity, which appears to be his specialty, and is fully convinced of its virtue as a hypnotic in all cases of either an acute or a chronic character. The amount given varied from fifteen to sixty grains three times a day, administered in ice-water or milk-punch.

ESSAY ON GROWTHS IN THE LARYNX: with Reports and an Analysis of One Hundred Consecutive Cases treated by the Author. By MORELL MACKENZIE, M.D., M.R.C.P., etc. 8vo, pp. 263. Philadelphia, Lindsay & Blakiston, 1871.

Twelve active years in the advancement of laryngeal pathology and therapeutics have elapsed since the epoch of Czermak's introduction of the laryngoscope to the profession. During this period a great many instruments and various operative procedures for the removal of laryngeal growths have been suggested and warmly recommended by their inventors, and in turn condemned by others. The unrivalled clinical facilities afforded by the London Hospital for Diseases of the Throat, and the experience of an extensive private practice, have given Mr. Mackenzie abundant opportunities for thoroughly and practically testing these various methods, and have enabled him to decide impartially, *pro* and *con.*, as regards their respective values.

It has been in the removal of laryngeal growths and obstructions that laryngoscopic surgery has hitherto promised to achieve its most brilliant triumphs. Nor do the results of the cases treated by the author and others fail to indicate that our most sanguine expectations are being realized. Of the one hundred cases, the greater part of whom were laboring with aphonia, dyspnœa, and even dysphagia, ninety-five were operated upon, of which seventy-seven were cured and eighteen improved; showing that a majority of such cases are susceptible of cure or amelioration.

Mr. Mackenzie considers "chronic congestion of the mucous membrane of the larynx, by far above all other causes, the most important etiological feature of simple morbid growths in the larynx. Inspiration of irritating vapors and particles of matter, occupations requiring the use of the voice out of doors, exert influences favorable to their production. The occurrence of twice the number of laryngeal tumors with the male sex, as compared with the female," is partly attributed to the fact that, "from the nature of their occupation, men are more exposed to the causes of chronic hyperæmia." The middle period of life appears most favorable to the development of these neoplasms; twenty-eight per cent. were those of persons between the ages of forty and fifty.

From this work the author has excluded the consideration of any malignant tumors or of so-called false excrescences. His classification of the benign neoplasms embraces "papillomata, benign epithelial growths, fibromata, fibro-cellular growths, myxomata, lipomata, fasciculated sarcomata, cystic growths, and angeiomata."

The last and decidedly the best section of the book is upon treatment. It is especially commendable for the perspicuity and fairness with which it discusses the comparative merits of the different operations and instruments. Mr. Mackenzie's experiences with the galvanic cautery are "that it is difficult to limit in its caustic action, and, in addition to the inconveniences that it causes to the patient, it also gives a great deal of trouble to the practitioner." As to topical anæsthetics, he says, "I have never found them of the least use, and some are even dangerous in their effects." Mr. Mackenzie has found forceps, of various constructions, the most useful instruments for the evulsion of growths; but he admits that much depends upon habit, and an operator is apt to give undue credit to that instrument which he is most accustomed to use.

The Appendix, with its protocol of the cases treated by the author and others, will no doubt prove of interest to the profession.

The work throughout is illustrated with finely-executed and accurate laryngoscopic drawings; the same, however, does not always hold good in regard to the microscopic representations. Who, without the aid of the explanatory notes, would detect in Fig. 8, Plate I., the "laminated capsule" or pearl globe of an epithelioma?

This is certainly the *chef-d'œuvre* of Mr. Mackenzie's productions. It is a valuable addition to the English medical literature on this special department. It will bear a favorable comparison with the more pretentious works of Türck or Brung, and cannot fail of general acceptance and favor among the profession.

ON BONE-SETTING (so called), and its Relations to the Treatment of Joints crippled by Injury, Rheumatism, Inflammation, etc. By WHARTON P. HOOD, M.D., M.R.C.S. London and New York, Macmillan & Co., 1871.

This little volume would be worthy of a place in the physician's library were it to fill therein no higher place than that of a piece of clever writing devoted to the description of a phase of medical life hitherto without a literature. The fame of the bone-setter, sustained by word of mouth of his followers, is little dependent upon the lustre of the printed page. It has, in consequence, come to the practitioner somewhat dimmed and blurred by the medium through which it passed, and, like the moonshine cures of old women, has been laughed at if noticed at all. It is a mannerism of sagacity, obtained after much experience, that nothing a patient may say about a medical subject can be believed. "It is the old story of knave and fool," is the comment. "It is too idle to consider seriously." But the profession has—or at least, we hope, will—come to believe that bone-setting is no exception to the rule that in every error there lies concealed a grain of truth; and we are thankful to Mr. Hood for digging out that precious particle, in the instance of bone-setting, and presenting it for our benefit.

It will be seen, therefore, that our author would be ill satisfied were his work to be considered merely entertaining. He designs to give the rationale of the practice of "bone-setting," so called, to claim for it a position in the treatment of neglected sprains and minor degrees of false anchylosis, and, what is of the greatest importance, to assert as a principle that a part whose normal function is motion cannot, *cæteris paribus*, be placed in the most favorable conditions for recovery by long-continued rest.

Mr. Hood informs us of the manner in which he obtained the necessary knowledge to make such an exposition. It appears that a well-known bone-setter of England, by the name of Hutton, in return for kindness received at the hands of the father of the author, Dr. Peter Hood, offered to explain to him all the details of the practice. Dr. Hood declined the offer, which, however, was accepted by his son, who thus became initiated into the mysteries of the craft, and, upon the death of Mr. Hutton, feeling himself relieved from any obligation of secrecy, published in successive numbers of the London *Lancet* a full account of the process. These papers, having attracted some attention, are now collected in book-form, and appropriately illustrated with seven full-page wood-cuts in explanation of the various manipulations. Judging from the cases which came under the notice of Mr. Hood, and from those obtained from other reliable sources, it is not surprising that the bone-setter attained much local notoriety oftentimes at the expense of men of great distinction in the profession. Mr. Hutton speaks of "cases in which some of the best skill of surgeons has been at fault, and in which speedy relief has been given by the proceedings of a

quack." A joint said to be weakened, and for which a variety of ointments and mechanical supports, or absolute rest of the part, or the long-continued use of sedative lotions, have been from time to time prescribed, while the duration of the trouble extends over months, and in some cases years, is seen at last by the bone-setter, who, promptly seeking for the tender spot, which it is asserted is always to be found somewhere about the affected joint, presses upon it firmly, while the limb is forcibly flexed. The patient is then directed to *use* the limb henceforward, and the case is dismissed, oftentimes entirely cured. In a word, a neglected false anchylosis has been detected and cured by breaking up the adhesions.

The constancy with which the tender spot occurs, as above noticed, is worthy of more than a passing word. It is highly probable that a joint, when kept for a long time in one position, will have the relations of opposing surfaces modified, and, as a consequence, the tender spot will be found at the point where the greatest pressure is being exerted by one of the arthritic factors. In the knee-joint, for example, the spot in question is over the inner condyle of the femur. We have frequently observed that in false anchylosis at the knee-joint the prominence over the *external* condyle of the femur is depressed, while that for the internal condyle is rendered unduly prominent, thus showing, in other words, that a tendency to lateral subdislocation existed in such cases. It will be remembered that we are enjoined to *press firmly* upon this tender spot while at the same time the limb is flexed.

The book is throughout readable, fresh, and suggestive. It is printed on thick white paper, and presents a handsome appearance.

BOOKS AND PAMPHLETS RECEIVED.

The Druggist's General Receipt Book: Comprising a Copious Veterinary Formulæ; with Numerous Recipes in Patent and Proprietary Medicines, Druggists' Nostrums, etc.; Perfumery and Cosmetics; Beverages, Dietetic Articles, and Condiments; Trade Chemicals, Scientific Processes, and an Appendix of Useful Tables. By Henry Beasley, Author of the "Book of Prescriptions," etc. Seventh American from the Last London Edition. 8vo, pp. 497. Philadelphia, Lindsay & Blakiston, 1871.

The Physician's Dose and Symptom Book, containing the Doses and Uses of all the Principal Articles of the Materia Medica and Officinal Preparations. By Joseph H. Wythes, A.M., M.D., Late Surgeon U.S. Volunteers, etc. Tenth Edition. 18mo, pp. 277. Philadelphia, Lindsay & Blakiston, 1871.

The Physician's Visiting List for 1872. Twenty-first Year of its Publication. Philadelphia, Lindsay & Blakiston.

Description of an Anomalous Origin of the Right Subclavian Artery, associated with Anomalies of the Branches of both Subclavians; with Remarks. By J. Ewing Mears, M.D., Professor of Anatomy and Surgery in the Pennsylvania College of Dental Surgery. Extracted from the *American Journal of the Medical Sciences* for October 1, 1871.

GLEANINGS FROM OUR EXCHANGES.

New Incision for Ligature of Subclavian Artery.—Assistant-Surgeon F. P. Staples, Medical Staff, communicates to the *Medical Times and Gazette*, July 22, 1871, some observations on ligature of the subclavian artery, suggesting a new incision. The course of this incision is thus described. The patient being placed in the usual position, with the head back and to the opposite side, and the shoulder slightly depressed, let the point of the knife be entered at the posterior edge of the sterno-mastoid muscle, one inch and a quarter above the superior margin of the clavicle, and let an incision be made from that point, in a straight line, to within a quarter of an inch of the attachment of the trapezius to that bone (clavicle), dividing the skin and the platysma muscle. This incision should measure nearly three inches. The external jugular vein should now be ligated in two places and divided in the direction of the original incision. The deep cervical fascia should now be divided, and the edges of the wound gently separated, when the posterior belly of the omo-hyoid muscle will be exposed for its entire length. The edges of the wound should now be retracted, and the superior retractor should carry with it the omo-hyoideus; and when this has been done, the white cords of the brachial plexus, with the artery inferior and internal to them, will be observed to occupy the bottom of the wound. The knife should now be laid aside, unless it is necessary to dissect out a lymphatic gland, and the vessel separated from the lowest cord of the plexus with a director and ligated in the usual manner. Tying the external jugular vein is not insisted upon, provided it can be easily drawn aside, but generally a ligature would expedite matters, and any branches of this vein which cross the line of incision should, if divided, be treated in the same manner.

The advantages claimed for the operation are: 1. That the incision is parallel to the normal course of the artery. 2. That the true guide to the vessel—the posterior belly of the omo-hyoid—is exposed for its entire length by the incision recommended. 3. That the edges of incision admit of easy retraction, and in this way access to the vessel is easy. 4. That the risk of venous hemorrhage obscuring the final steps of the operation is lessened.

These special advantages are further claimed: 1. That the incision is parallel to the omo-hyoid muscle throughout its entire length. 2. Retraction of the edges of the wound can be made in both directions. 3. In the incision recommended there is no risk of dividing the transverse cervical vessels.

Theory of Disinfectants.—Mr. T. P. Blunt, M.A., F.C.S., in a paper in the *British Medical Journal*, July 15, 1871, records the results of some experiments which he made to test the applicability of Dr. Hirsch's speculation that the disinfecting action of carbolic acid lies in its power of coagulating albumen,—that is, that the acid finds its way into the minute organisms which propagate disease, by diffusion through their investing membrane, thus reaching the albumen which they in common with all germinal matter contain, and, by coagulating it, causing their death.

Mr. Blunt took another coagulator of albumen—nitro-muriatic acid—and found that by its aid specimens of urine and meat were well preserved. He then proceeded to test iron-alum, sesquichloride of iron, common alum, chloride of zinc, and nitrate of lead; all of which are commonly used as disinfectants, and all of which he found to coagulate albumen.

He found that sulphurous acid and the sulphites would not coagulate albumen, and in their case believes that we must look for some more remote physiological effect upon germinal existence.

Action of Chlorides on Calomel.—In the *American Journal of Pharmacy*, August, 1871, Mr. Michael J. Cummings reports that, contrary to the opinion of Mr. Mialhe, but supporting that of Dr. Gardner, he has found that calomel is not converted into corrosive sublimate by the chlorides of the alkalifiable metals at the temperature of the body. The change occurs less readily with chloride of sodium than with chloride of ammonium, but in neither case at a lower temperature than 110° Fahr.

The Chemical Composition of Pus-Corpuscles.—Miescher (*Medical Times and Gazette*, from Hoppe-Seyler's *Med.-Chem. Untersuch.*, 1871, pp. 441-486), in order to obtain pus-corpuscles free from serum, treated pus and fabrics impregnated by it with saline solutions of appropriate density. In those liquids the pus-corpuscles sink to the bottom of the fluid, and may be obtained tolerably pure by repeated washing. Attention was first directed to the albuminoids of the protoplasm. Pus-corpuscles are composed mainly of albuminoids, and when treated with a solution of common salt they are converted into a viscid gelatinous mass,—a change dependent, as Rovida has shown, on the formation of a ring of hyaline substance around each corpuscle; but this is not due to myosin, for Miescher could obtain no reaction for this body. Five albuminoids were obtained, agreeing (in number at least) with the five different albuminates found by Kühne

in muscle. There were—alkaline albuminate, undetermined whether kept in solution by alkaline phosphate or not; an albuminoid coagulable at 118° to 120° Fahr., which was not merely albumen dissolved in alkaline phosphate; an albuminoid coagulable at the temperature at which ordinary serum-albumen coagulates; Rovida's hyaline substance; and a fifth albuminoid, the reaction of which need not be described here. Miescher was unable to detect paralbumen, though he does not deny its presence. The alcoholic extract of the globules was only investigated for lecithin and cerebrin, both of which were found to be present, the former in abundance. No glutin or chondrin was found in the watery extract, nor in the serum of pus. It must be understood that a mixture of lecithin and cerebrin forms the substance to which Liebreich assigned the name of "protagon"—a highly phosphorized material; for lecithin leaves on incineration an ash very rich in phosphoric acid. But Miescher has also demonstrated the presence of another phosphorized substance in the nuclei of pus-corpuscles, to which he has assigned the name nuclein; and he surmises that this body, on account of its phosphorus, plays an important part in cell-growth, and in the genesis of cell albuminoids and their derivatives. Nuclein closely resembles mucin, but is richer in phosphorus, and it appears to exist preformed in the corpuscles.

Five Temporary Teeth at Forty.—The *Canada Journal of Dental Science* reports the case of a lady who had five teeth removed at the age of forty, and on examination they were found to be the temporary teeth, the permanent ones coming on after them.

Removal of the Kidney during Life.—Prof. Simon, of Heidelberg (Schmidt's *Jahrbücher*, Bd. 151, Nr. 7, 1871; from the *Deutsche Klin.*, xv. 137, 1870), reports that he removed the left kidney during life from a woman twenty-six years of age, under the following circumstances: A year and a half before, ovariotomy had been performed, when, in consequence of the firm adhesions of the tumor to the adjacent organs, it was necessary to remove the uterus and to divide the ureter: the divided end of the ureter becoming adherent to the abdominal wall just above the symphysis pubis, the urine from the left kidney afterwards flowed through this fistulous orifice. An attempt to establish a communication between the ureter and the bladder, and in this way to close the fistulous orifice, was abandoned in consequence of the patient having been rendered seriously ill by it. It was found equally impossible, for the same reason, to produce an artificial closure of the ureter and atrophy of the kidney. It was therefore determined to extirpate the organ from behind the peritoneum, which was accordingly done. The patient bore the operation very well, and was able to leave her bed at the end of six weeks. The ligature which had been placed around the pedicle did not come away for six months; after which a great improvement in her health was observed.

Another case of extirpation of the kidney (same journal, from *Würtemb. Corr.*, Bl. lxi. 14, 1871) is reported by Dr. Linser. In this case the patient was a soldier who had been wounded in the left lumbar region. Bloody urine flowed through the wound at first, and subsequently pus mixed with blood. An incision was made from the twelfth rib to the crest of the ilium; but the kidney was so adherent to its capsule that it was necessary to remove part by the scissors. The patient sank eight hours after the operation.

Phosphorus-Poisoning.—In the *Lancet*, August 5, 1871, W. Anderson, M.D., reports a case of phosphorus-poisoning in a child aged twenty months, who sucked the heads off about twenty matches in the evening. It presented no particular symptoms next day, but the mother gave it a dose of castor oil, which operated freely. In the evening of the third day the child became drowsy and fell asleep, sleeping for nearly twenty hours. The fourth day oil of turpentine was given, and milk. On the fifth day the child vomited and showed signs of gastric and abdominal distress, which increased until the morning of the seventh day, when it died.

At the autopsy there was marked general ecchymosis, and the body presented an icteric tint. On opening the stomach a marked alliaceous odor was perceived, and the mucous membrane of that organ was much injected, as was also that of the ileum. The liver showed signs of commencing fatty degeneration. No phosphorus could be detected in the substance of the liver.

Dahlberg's Tincture.—Tinctura colocynthidis, known also as Dahlberg's tincture, is made as follows: Colocynth pulp (cut small and free from seeds), ℥j; aniseed, ℥j; proof spirit, 1 lb. Digest for eight days, express, and filter. Dose, 6 to 20 drops.—*Medical Record;* from *Pharm. Journal and Transactions.*

The Treatment of Smallpox.—Dr. Alexander Collie, the resident medical officer at the Homerton Fever Hospital, says that treatment in the mild variety of variola is unnecessary, and in the black smallpox useless. In the confluent form, however, treatment is of the greatest importance, and the result of the case will sometimes be determined by it. The room in which the patient is placed should be thoroughly ventilated, the windows being kept open even in winter. If possible, there should be two beds in his room, in order that he may be changed from one to the other. He should be allowed a highly nutritious diet, consisting of milk, beef-tea, eggs beaten up with whiskey, tapioca. Cold water will be found most efficacious in relieving thirst, and the prejudice of the patient's friends should not be allowed to interfere with its administration. Effervescing drinks and lemonade may also be allowed. For heat of skin the patient may be sponged with cold water two or three times daily. If there be much restlessness or sleeplessness, the following repeated in half an hour, if needed, will be found of great service: tincture of opium, fifteen minims; spirit of ether, fifteen minims; camphor water, one ounce; and if this fails, stimulants may be given. For the soreness of throat, oleaginous or mucilaginous drinks may be given, and the following has also been found beneficial: Tincture of iron and glycerine, of each, thirty minims three times a day. If laryngitis occur, a large linseed poultice should be applied round the throat, and the temperature of the room should be raised, and rendered moist by means of steam. All depressing remedies should be avoided, and tracheotomy should be performed whenever there is much interference with the respiration. If the patient becomes delirious, it is of the utmost importance that he should be treated with patience, gentleness, and firmness, and that no measures of restraint should be employed. Nothing has been found absolutely preventive of pitting. Common olive oil may be used for this purpose in preference to applications which are more or less irritating. If diarrhœa occur, a mixture containing laudanum and sulphuric acid may be given.

In regard to the time when a smallpox patient may be considered free of danger to his neighbors, Dr. Collie says that this cannot be until all the products of disease are removed from his body, and until he presents all the ordinary indications of health; such as a normal temperature, a quiet pulse, a clean tongue, a clear mind, etc.

Singing by Aphasic Children.—Dr. Hughlings Jackson reports in the *Lancet* for September 23 two cases in which children who had the power of uttering only a few words were able to sing very correctly and to pick up tunes. In one of the cases the child could utter words when singing which he could not when speaking. Dr. Laségue knew a musician who was completely aphasic, and who could neither read nor write, and yet who could note down a musical phrase sung in his presence.

Hydrophobia in a Horse.—A singular instance of this disease is recorded in a recent number of the *Zeitschrift für Parasitenkunde* (*Nature*, August 17, 1871, p. 308). A horse which had been some time before bitten by a dog supposed to be mad was brought to the hospital of the Royal Veterinary College at Berlin, suffering from an uncontrollable propensity to bite, not only men and other animals, but any hard substance, and even its own body, by which it had severely injured its mouth and broken several of its teeth. After its admission to the hospital, this propensity was violently manifested in fits, preceded by remarkable convulsive movements, after which it would fall suddenly, and remain for a time perfectly motionless, becoming gradually weaker after each attack. It had refused food for two days, and died, without a struggle, on the evening of the day on which it was admitted. An examination showed no organic disease, but considerable internal inflammation.

CONNECTIVE TISSUE IN ŒDEMA.—L. Ranvier (*Centralblatt*; from *Comptes Rendus*, July 10, 1871) has found that when œdema is artificially produced in the leg of a dog the following lesions of the connective tissue will be observed: The bundles of fibres are separated from one another by clear serum, in which are suspended numerous white blood-corpuscles having a normal appearance and possessing amœboid movements. The fixed cells, instead of being flat, have become round, and are filled with highly-refracting particles. The capillaries and the small arteries and veins are distended with blood, and their inner surfaces are lined with white blood-corpuscles: consequently, the extravasation of these cells and their collection along the sides of the blood-vessels do not necessarily indicate the presence of inflammation.

MISCELLANY.

A MYSTERIOUS CASE.—The following account, which we take from the *Public Ledger* of October 9, is of interest, as showing that a man may live several days with a foreign body in his brain:

"On the 2d of October, Thomas Buckley, aged sixty-four years, a tinsmith, was admitted to the Almshouse, as the authorities there state, from the Third District Police Station. This, however, the police-officers have no recollection of. On his admission, being intoxicated, he was placed in the drunken ward, from which, as he appeared to be suffering from some injury, he was transferred to the surgical ward, and from thence to the out-ward, and again into the drunken ward. During these many transfers he appeared to be suffering from pain and gradually sinking, and on Saturday he died. A post-mortem examination was made, when a knife-blade about two inches long, apparently from an ordinary pocket-knife, was found driven through the skull, on the right side, just above and in front of the ear, and imbedded almost its entire length in the brain. The blade was not broken off, but appeared to have come from the handle by the loosening of the rivets. It was covered over by the skin, and but a slight wound left to show where it had entered. No clue as to how this weapon came there has been obtained."

At the coroner's inquest, which was held a few days later, no other facts were developed.

THE MENTAL CONDITION OF THE PARISIANS.—The *Medical Times and Gazette* says that the returns of the Paris lunatic-asylums show a diminution in the amount of madness, and suicides have, since the first investment of Paris, become unusually rare. On the other hand, a sort of idiotic stupor prevails to a considerable extent, especially among women, owing, it is said, to the successive shocks given during and after the siege to the nervous system.

THE PRUSSIAN LAW IN REGARD TO THE PRACTICE OF MIDWIFERY.—In a small country town in Prussia, a widow, of generally creditable character, was recently sentenced to four weeks' imprisonment for performing the duties and receiving the pay of a midwife without the proper previous training and qualification. As far as appears, no ill had resulted to any one from her services in this capacity; but she was indicted for presuming to practise a vocation wherein the question of human life was so immediately concerned, without the proper education for the business. The *Kansas City Medical Journal*, in commenting upon this, says, "The Prussians evidently think more of their wives and babies than do we Americans."

SIAMESE TWINS.—We take the following from the *Druggists' Circular*:

"The Siamese twins are among the most remarkable united twins the world has latterly known. In the year 1100, Eliza and Mary Chalhurst were born in Kent, England, united twins. They lived in this condition thirty-four years, and then one died. It was proposed to cut them apart; but the survivor would not consent, and she was dead six hours after her partner. Two girls were born, fastened together, in Edinburgh, many years ago. The food one ate nourished the other; but often when one slept the other would be 'wide awake.' They lived seven years.

"In 1700, Helen and Judith were born at Presburg, Hungary, united back to back. They lived twenty-three years. Judith was always feeble, Helen always well and strong; yet they both died at the same moment. In 1856, two children were born united as Helen and Judith were. They are said to be living in Texas at this moment. They are entirely different in disposition and temperaments, and often have bitter quarrels. Lazarus and John Collorado, born at Genoa in 1617, lived many years. The attached and imperfectly developed twin John hung *with his head downwards* from the lower part of the chest of Lazarus. This double monster married and had several children, who were perfectly and admirably developed. They all visited Scotland in 1642. At the court of James III. of Scotland there lived a man double above the waist and single below it. The two heads learned several languages, and often debated together. The two halves also often engaged in angry fisticuffs. This monster lived twenty-eight years. One of the bodies died several days before the other. Dr. Boehm, a celebrated German surgeon, recently cut asunder two female children, aged five years, who were joined like the Siamese twins. One of the girls died on the day of the operation. The other was, at last accounts, alive, and in the best of health."

A MEMORIAL TO HARVEY.—We are glad to learn from the London *Lancet* that at a public meeting held at Folkestone it was resolved to erect in that town a statue of Harvey. It is hoped that this object will be realized by April, 1878, which will be the tercentenary of Harvey's birthday, for he was born on the 1st of April, 1578, at Folkestone.

THE GOODSIR FELLOWSHIP.—It will be remembered that soon after the death of Prof. Goodsir his friends and pupils endeavored to raise by subscription a fund sufficient to establish a Fellowship in Anatomy and Physiology in the University of Edinburgh, to be called the Goodsir Fellowship. This idea, in consequence of the amount collected not being sufficient for the purpose, has been abandoned, and it is now proposed to institute a Scholarship in Anatomy and Physiology.

A NEW POISON-BOTTLE.—An invention which is likely to add to the security of persons for whom poisonous draughts, liquors, or solutions, for external or internal use, are prescribed, is recorded in the *British Journal*. There are a number of conical projections from the surface of the bottle, so arranged that any one grasping it carelessly in mistake in the dark will "from the nettle danger extract the flower safety." We should be very glad to see this bottle in general use in this country.

AN EYE FOR AN EYE.—There is danger as well as pleasure attendant upon the practice of medicine, as the following extract from the New York *Tribune* shows. The wife of one Giovanni Marcelli, an Italian resident of Cairo, in Egypt, lost her sight after careful treatment for ophthalmia by a prominent oculist, Dr. Altier Garrulier. The husband, from a feeling of senseless revenge, waylaid the doctor and his secretary as they were going home one night, and threw *nitric acid* into their eyes, entirely destroying them.

MEDICINE IN RUSSIA.—According to the official reports of 1870, there were in that year 10,000 legally-qualified medical

practitioners in Russia, of whom 6113 held public appointments and 4686 were engaged in private practice. There is about one medical man to each 7182 of the population. Among the lower classes, the *British Medical Journal* says, the value of rational professional assistance is quite unrecognized; and hence infectious diseases commit frightful ravages, and the mortality among children is greater than in any of the countries of Western Europe.

CHARITY AND INDEPENDENCE.—The *Medical Times and Gazette*, in an article on this subject, says:

"There is no more difficult question than the one relating to the dispensing of gratuitous advice in our medical charities. There is no charity so much abused, and none the exercise of which tends to demoralize the recipient more hastily or effectually. We have noticed on several occasions the large sums which have been subscribed by the working-men of Birmingham for the extension of the Queen's Hospital. We are not altogether gratified with the proceeding. To some extent it is worthy of commendation; but is it altogether beneficial either to the hospital or to the working-classes? We scarcely think it is; and it is liable to be much misapprehended. Will not these working subscribers demand, as it were, that as a right which is in reality a favor? Is it not to be feared that this 'system' may merge into a large hospital club, and thus inflict great injury, not only on surgeons in general practice, but also on the subscribers themselves? It will be curious to watch the result of the proceedings, and to determine whether the example set by the Queen's Hospital at Birmingham should or should not be followed."

THE ANGLO-AMERICAN AMBULANCE. — From the same journal we take the following:

"Apropos of the admirable work of this ambulance, we may notice some prevalent misconceptions as to its relations, and a little 'trouble' which occurred at the outset, and of which some incorrect versions have been recently current in the papers. The ambulance was Anglo-American in constitution of its *personnel* and in its origin, but it was Anglo-French in its equipment at the outset, and wholly English in its finances and supplies through its later stages. The facts are that Dr. Evans, the dentist of Paris, Chairman of the American Committee, opposed to the utmost the proposition of Drs. Sims, MacCormac, Frank, Pratt, Tilghman, and May, to start for the scene of action and join the army. So energetic and effectual was his opposition that these gentlemen separated themselves entirely from Evans' committee, and, being thus regularly constituted and supported by the French and English societies, started, in spite of that gentleman and independently of his aid, for Sedan. At the last moment, the feeling of annoyance led to a personal fracas between Dr. Sims and Dr. Evans, which the latter recently brought before the French police, and, on their declining to take any notice, brought a civil action against Dr. Sims, in which he laid his damages at £200 and received £12. After this premature act of warfare on the part of the chief of the ambulance, they started, unimpeded, for the seat of war, and, fortunately, reached Sedan in time to render services which have reflected lustre on both societies and on all the *personnel* of the staff."

THE ORIGIN OF ENEMATA.—We take the following from the *British Medical Journal:*

"Frederigo Kernot, of Naples, in a newly-published *Storia della Farmacia*, describes 'with true Southern liveliness,' according to the *Pharmaceutical Journal*, the invention of the enema-apparatus, which he looks upon as an epoch in pharmacy as important as the discovery of America in the history of human civilization. The glory of the invention of this instrument, so beneficial to suffering mankind, belongs to an Italian, Gatenaria, whose name ought to find a modest place together with Columbus, Galileo, Gioja, and other eminent and illustrious Italians. He was a compatriot of Columbus, and professor at Pavia, where he died in 1496, after having spent several years in the perfection of his instrument. The enema-apparatus may be justly named the queen of the world, as it has reigned without a rival for three hundred years over the whole Continent, besides Brazil and America. The enema came into use soon after the invention of the apparatus itself. Bouvard, physician to Louis XIII., applied two hundred and twenty enemata to this monarch in the course of six months. In the first years of Louis XIV. it became the fashion of the day. Ladies took three or four a day to keep a fresh complexion, and the dandies used as many for a white skin. Enemata were perfumed with orange, angelica, bergamot, and roses; and Mr. Kernot exclaims enthusiastically, 'O! se tornasse questa moda!' (Oh that the fashion would return!). The medical profession at first hailed the invention with delight, but soon found the application *infra dig.*, and handed it over to the pharmacist; but shameful invectives, sarcasms, and epigrams, hurled at those who exercised the humble duty of applying the apparatus, made them at last resign it to barbers and hospital-attendants. As a specimen of these epigrams, the author gives the epitaph on the tombstone of an ancient pharmacist:

"'Ci-git qui pour un quart d'écu
S'agenouillait devant un cu.'"

THE number of deaths from smallpox in Philadelphia for the weeks ending October 14 and 21 were respectively 54 and 74.

MORTALITY OF PHILADELPHIA.—The following reports are condensed from the records at the Health Office:

	For the week ending Oct. 14.	Oct. 21.
Consumption	37	33
Other Diseases of Respiratory Organs	29	33
Diseases of Organs of Circulation	11	9
Diseases of Brain and Nervous System	53	38
Diseases of the Digestive Organs	25	22
Diseases of the Genito-Urinary Organs	8	1
Zymotic Diseases	71	87
Debility	24	33
Cancer	9	7
Casualties	11	9
Old Age	7	8
Stillborn	14	13
Intemperance	0	2
Scrofula	2	2
Syphilis	0	2
Suicide	2	0
Murder	0	4
Tumors	1	1
Tetanus	0	2
Unclassifiable	7	6
Unknown	5	1
Totals	316	313
Adults	165	152
Minors	151	161

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM OCTOBER 5, 1871, TO OCTOBER 18, 1871, INCLUSIVE.

MILLS, M., SURGEON.—By S. O. 395, War Department, A. G. O., October 9, 1871, leave of absence extended thirty days.

MILHAU, JOHN J., SURGEON.—By S. O. 212, Department of the South, October 7, 1871, granted leave of absence for twenty days.

PETERS, DE WITT C., SURGEON.—By S. O. 393, War Department, A. G. O., October 7, 1871, granted leave of absence for thirty days, with permission to apply for an extension of sixty days.

FRYER, B. E., SURGEON.—By S. O. 174, Department of the Missouri, September 30, 1871, granted leave of absence for thirty days, with permission to apply for an extension of thirty days.

CALDWELL, D. G., ASSISTANT-SURGEON.—By S. O. 214, Department of the South, October 12, 1871, granted leave of absence for thirty days, with permission to apply for an extension of sixty days.

LORING, L. Y., ASSISTANT-SURGEON.—By S. O. 181, Department of the Missouri, October 9, 1871, upon distribution of companies of 6th U. S. Cavalry to winter quarters, to take post at Fort Riley, Kansas.

PATZKI, J. H., ASSISTANT-SURGEON.—By S. O. 199, Department of Texas, October 4, 1871, relieved at Fort Richardson, and assigned to duty at Fort Clark, Texas.